09/963, 858



FILE 'HOME' ENTERED AT 08:11:39 ON 23 MAY 2004

=> file biosis medline caplus wpids uspatfull
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 5.04 5.04

FULL ESTIMATED COST

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FILE 'MEDLINE' ENTERED AT 08:25:46 ON 23 MAY 2004

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*** YOU HAVE NEW MAIL ***

=> s dendrimer?/ti

L1 5289 DENDRIMER?/TI

=> s l1 and star (3a) polyethylene oxide? L2 3 L1 AND STAR (3A) POLYETHYLENE OXIDE?

=> dup reml2

ENTER REMOVE, IDENTIFY, ONLY, OR (?):rem

ENTER L# LIST OR (END):12

'REML2' IS NOT VALID. VALID FILE NAMES ARE 'CAPLUS'
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=> dup rem 12

PROCESSING COMPLETED FOR L2

L3 3 DUP REM L2 (0 DUPLICATES REMOVED)

=> d 13 bib abs 1-3

L3 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:65898 CAPLUS

DN 130:210058

TI Star Poly(ethylene oxide)s from Carbosilane Dendrimers

AU Comanita, B.; Noren, B.; Roovers, J.

CS Institute for Chemical Process and Environmental Technology, National Research Council of Canada, Ottawa, ON, K1A OR6, Can.

SO Macromolecules (1999), 32(4), 1069-1072 CODEN: MAMOBX; ISSN: 0024-9297

PB American Chemical Society

DT Journal

LA English

AB A series of 4-arm, 8-arm, and 16-arm poly(ethylene oxide)s (PEO) was prepared from hydroxy functionalized carbosilane dendrimers of generation zero, one, and two, resp. The PEO arms are grown anionically from the

09567863

multifunctional cores. The polymers have narrow mol. weight distributions. Anal. of the mol. weight, intrinsic viscosity, and translational diffusion coefficient in methanol confirms the star structure of the polymers. The aqueous

solns. of the star PEOs appear normal. Low mol. weight star polymers, however, show abnormally low intrinsic viscosities and are adsorbed on the size exclusion column hydrogel material.

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1998:546452 CAPLUS
- DN 129:231096
- TI Star poly(ethylene oxide)s from carbosilane dendrimers
- AU Domanita, B.; Roovers, J.
- CS ICPET, Natl. Res. Counc., Ottawa, ON, K1A OR6, Can.
- SO Polymeric Materials Science and Engineering (1998), 79, 271-272 CODEN: PMSEDG; ISSN: 0743-0515
- PB American Chemical Society
- DT Journal
- LA English
- AB Star-branched poly(ethylene oxides) are prepared using a functionalized carbosilane dendrimer core. The number of arms and the mol. weight of each arm can be strictly controlled.
- RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1997:224382 CAPLUS
- DN 126:264426
- TI Synthesis of PEO star molecules based on PAMAM dendrimer cores
- AU Yen, Diane R.; Merrill, Edward W.
- CS Dep. Chem. Eng., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
- SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1997), 38(1), 531-532
 CODEN: ACPPAY; ISSN: 0032-3934
- PB American Chemical Society, Division of Polymer Chemistry
- DT Journal
- LA English
- AB A new method of synthesizing a monodisperse sample of poly(ethylene oxide) (PEO) star mols. is described. It is based on reacting preformed arms consisting of functionalized derivs. of linear PEO with polyamidoamine (PAMAM) dendrimer cores. The mol. weight and polydispersity of the newly formed star mols. were determined using gel permeation chromatog. in series with light scattering. Stars with up to 144 arms have been prepared using this method.

=> d his (FILE 'HOME' ENTERED AT 08:11:39 ON 23 MAY 2004) FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 08:25:46 ON 23 MAY 2004 5289 S DENDRIMER?/TI L1L23 S L1 AND STAR (3A) POLYETHYLENE OXIDE? 3 DUP REM L2 (0 DUPLICATES REMOVED) L3 => s l1 and therap? 278 L1 AND THERAP? => s 14 and polyethylene 23 L4 AND POLYETHYLENE => s 15 not 12 23 L5 NOT L2 L6 => dup rem 16 PROCESSING COMPLETED FOR L6 21 DUP REM L6 (2 DUPLICATES REMOVED) => s 17 and carboxylic 9 L7 AND CARBOXYLIC => d 18 bib abs 1-9 ANSWER 1 OF 9 USPATFULL on STN 1.8 2003:187372 USPATFULL AN ΤI Anionic or cationic dendrimer antimicrobial or antiparasitic compositions TN Matthews, Barry Ross, Olinda, AUSTRALIA Holan, George, Brighton, AUSTRALIA PΑ STARPHARMA LIMITED (non-U.S. corporation) PΙ US 2003129158 20030710 A1 US 2002-227538 20020826 (10) AΙ A1 Continuation-in-part of Ser. No. US 2001-786913, filed on 8 May 2001, RLT GRANTED, Pat. No. US 6464971 A 371 of International Ser. No. WO 1999-AU763, filed on 13 Sep 1999, UNKNOWN PRAI AU 1998-5842 19980914 DTUtility FS APPLICATION LREP FOLEY AND LARDNER, SUITE 500, 3000 K STREET NW, WASHINGTON, DC, 20007 CLMN Number of Claims: 14 ECL Exemplary Claim: 1 DRWN 5 Drawing Page(s) LN.CNT 2643 CAS INDEXING IS AVAILABLE FOR THIS PATENT. To inhibit, prophylactically or therapeutically, a bacterial, yeast, fungal, or parasitic agent in a patient, an effective amount of a dendrimer is administered to the patient, which dendrimer has a plurality of terminal groups, at least one of which has an anionic- or cationic-moiety covalently bonded or linked thereto. The anionic-containing moiety is not a disaccharide or oligosaccharide moiety, and, where the anionic-containing moiety is a neuraminic- or sialic acid-containing moiety, it is modified in the 4-position by

substitution with an amino, amido, cyano, azido or guanido group, or is

unsaturated.

```
1.8
     ANSWER 2 OF 9 USPATFULL on STN
AN
       2003:112903 USPATFULL
ΤI
       Dendrimers and methods for their preparation and use
ΤN
       Lohse, Jesper, Copenhagen NV, DENMARK
PΑ
       DAKO A/S (non-U.S. corporation)
PΙ
       US 2003077635
                          A1
                               20030424
       US 2002-238732
AΙ
                               20020911 (10)
                          A1
       Continuation of Ser. No. US 2000-606315, filed on 29 Jun 2000, ABANDONED
RLI
PRAI
       DK 1999-934
                           19990629
DТ
       Utility
       APPLICATION
FS
LREP
       JACOBSON HOLMAN PLLC, 400 SEVENTH STREET N.W., SUITE 600, WASHINGTON,
       DC, 20004
       Number of Claims: 68
CLMN
       Exemplary Claim: 1
ECL
       17 Drawing Page(s)
DRWN
LN.CNT 2944
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Novel dendrimers as well as novel dendrimer complexes are disclosed.
       Such dendrimers and/or dendrimer complexes may be used for the detection
       of various components of a sample and as detection systems and signal
       enhancement/amplification systems. The dendrimers and dendrimer
       complexes may also be used for labelling various entities/compounds.
       Furthermore, labelling kits and detection kits comprising one or more
       labelled dendrimers or one or more dendrimer complexes are also one of
       the possible uses.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 3 OF 9 USPATFULL on STN
L8
AN
       2002:268405 USPATFULL
TI
       Anionic or cationic dendrimer antimicrobial or autiprotozoan
       compositions
TN
       Matthews, Barry Ross, Olinda, AUSTRALIA
       Holan, George, Brighton, AUSTRALIA
       Starpharma Limited, Parkville, AUSTRALIA (non-U.S. corporation)
PΑ
PΙ
       US 6464971
                          В1
                               20021015
       WO 2000015240 20000323
       US 2001-786913
AΙ
                               20010508 (9)
       WO 1999-AU763
                               19990913
                               20010508 PCT 371 date
PRAI
      AU 1998-5842
                           19980914
DT
      Utility
FS
       GRANTED
EXNAM
      Primary Examiner: Webman, Edward J.; Assistant Examiner: Nguyen, Helen
LREP
       Foley & Lardner
      Number of Claims: 12
CLMN
ECL
      Exemplary Claim: 1
       5 Drawing Figure(s); 5 Drawing Page(s)
DRWN
LN.CNT 1771
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       To inhibit, prophylactically or therapeutically, a bacterial,
       yeast, fungal, or parasitic agent in a patient, an effective amount of a
       dendrimer is administered to the patient, which dendrimer has a
      plurality of terminal groups, at least one of which has an anionic- or
       cationic-moiety covalently bonded or linked thereto. The
       anionic-containing moiety is not a disaccharide or oligosaccharide
      moiety, and, where the anionic-containing moiety is a neuraminic- or
       sialic acid-containing. moiety, it is modified in the 4-position by
      substitution with an amino, amido, cyano, azido or guanido group, or is
      unsaturated.
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L8
     ANSWER 4 OF 9 USPATFULL on STN
AN
       2002:228446 USPATFULL
TI
       Dendrimeric support or carrier macromolecule
IN
       Frechet, Jean J., Oakland, CA, UNITED STATES
       Ihre, Rolf H., Stockholm, SWEDEN
PA
       The Regents of the University of California, Oakland, CA (U.S.
       corporation)
PΙ
       US 2002123609
                          Δ1
                               20020905
                               20010925 (9)
ΑI
       US 2001-963858
                          A1
PRAI
       US 2000-236561P
                          20000929 (60)
       Utility
DT
FS
       APPLICATION
LREP
       TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH
       FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN
       Number of Claims: 48
ECL
       Exemplary Claim: 1
DRWN
       6 Drawing Page(s)
LN.CNT 3331
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention provides a family of dendrimers that are useful as
       supports, vectors, carriers or delivery vehicles for a variety of
       compounds in biomedical and technological applications. In particular,
       the macromolecules may be used for the delivery of drugs, genetic
       material, imaging components or other functional molecule to which they
       can be conjugated. An additional feature of the macromolecules is their
       ability to be targeted for certain organs, tumors, or types of tissues.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L8
     ANSWER 5 OF 9 USPATFULL on STN
AN
       2001:25417 USPATFULL
тT
       Antiviral dendrimers
IN
       Matthews, Barry Ross, Olinda, Australia
       Holan, George, Brighton, Australia
       Biomolecular Research Institute Ltd., Parkville, Australia (non-U.S.
PΑ
       corporation)
       US 6190650
PΙ
                               20010220
                          B1
       WO 9534595 19951221
                               19970428 (8)
ΑI
       US 1997-765528
       WO 1995-AU350
                               19950615
                               19970428 PCT 371 date
                               19970428 PCT 102(e) date
       AU 1994-6239
PRAI
                           19940615
DT
       Utility
FS
       Granted
EXNAM
      Primary Examiner: Webman, Edward J.
LREP
       Foley & Lardner
       Number of Claims: 40
CLMN
ECL
       Exemplary Claim: 1
       1 Drawing Figure(s); 1 Drawing Page(s)
DRWN
LN.CNT 1226
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       An antiviral compound comprises a dendrimer such as a polyamidoamine or
       polyly sine dendrimer having a plurality of terminal groups, wherein at
       least one of the terminal groups has an anionic- or cationic-containing
       moiety bonded thereto, particularly a sulfonic acid-containing,
       carboxylic acid-containing or trimethylammonium-containing
       moiety or the like.
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 6 OF 9 USPATFULL on STN
L<sub>8</sub>
AN
       2000:117327 USPATFULL
TI
       Self-assembling polynucleotide delivery system comprising
       dendrimer polycations
IN
       Szoka, Jr., Francis C., San Francisco, CA, United States
       Haensler, Jean, Petite Rosselle, France
       The Regents of the University of California, Oakland, CA, United States
PΑ
       (U.S. corporation)
PI
       US 6113946
                               20000905
                               19950606 (8)
ÀΙ
       US 1995-469433
RLI
       Continuation of Ser. No. US 1993-92200, filed on 14 Jul 1993, now
       abandoned which is a continuation-in-part of Ser. No. US 1992-913669,
       filed on 14 Jul 1992, now abandoned which is a continuation-in-part of
       Ser. No. US 1992-864876, filed on 3 Apr 1992, now abandoned
DT
       Utility
FS
       Granted
EXNAM
      Primary Examiner: Brusca, John S.; Assistant Examiner: Larson, Thomas G.
       Koenig, Nathan P.Crosby, Heafey, Roach & May
LREP
CLMN
       Number of Claims: 64
ECL
       Exemplary Claim: 1
DRWN
       13 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 2326
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A self-assembling polynucleotide delivery system comprises a dendrimer
       polycation aiding in the delivery of the polynucleotide to a desired
       address, and optionally other agents such as DNA masking agents, cell
       recognition agents, charge-neutralization agents, membrane-
       permeabilization agents, and subcellular-localization agents.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L8
     ANSWER 7 OF 9 USPATFULL on STN
       1999:151192 USPATFULL
AN
TΙ
       Self-assembling polynucleotide delivery system comprising
       dendrimer polycations
IN
       Szoka, Jr., Francis C., San Francisco, CA, United States
       Haensler, Jean, Petite-Rosselle, France
PA
       The Regents of the University of California, Oakland, CA, United States
       (U.S. corporation)
       US 5990089
_{
m PI}
                               19991123
ΑI
       US 1995-486826
                               19950607 (8)
       Division of Ser. No. US 1993-92200, filed on 14 Jul 1993, now abandoned
RLI
       which is a continuation-in-part of Ser. No. US 1992-913669, filed on 14
       Jul 1992, now abandoned which is a continuation-in-part of Ser. No. US
       1992-864876, filed on 3 Apr 1992, now abandoned
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Degen, Nancy; Assistant Examiner: Larson, Thomas G.
LREP
       Koenig, Nathan P. Crosby, Heafey, Roach & May
       Number of Claims: 5
CLMN
ECL
       Exemplary Claim: 1
       14 Drawing Figure(s); 8 Drawing Page(s)
DRWN
LN.CNT 2041
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A self-assembling polynucleotide delivery system comprises a dendrimer
AΒ
       polycation aiding in the delivery of the polynucleotide to a desired
       address, and optionally other agents such as DNA masking agents, cell
       recognition agents, charge-neutralization agents, membrane-
```

permeabilization agents, and subcellular-localization agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
\Gamma8
     ANSWER 8 OF 9 USPATFULL on STN
       1998:11719 USPATFULL
AN
TI
       Bioactive and/or targeted dendrimer conjugates
       Tomalia, Donald A., Midland, MI, United States
IN
       Baker, James R., Ann Arbor, MI, United States
       Cheng, Roberta C., Midland, MI, United States
       Bielinska, Anna U., Ypsilanti, MI, United States
       Fazio, Michael J., Midland, MI, United States
       Hedstrand, David M., Midland, MI, United States
       Johnson, Jennifer A., Livonia, MI, United States
       Kaplan, deceased, Donald A., late of Marina del Rey, CA, United States
       by Margorie Kaplan, executor
       Klakamp, Scott L., Russell, PA, United States
       Kruper, Jr., William J., Sanford, MI, United States
       Kukowska-Latallo, Jolanta, Ann Arbor, MI, United States
       Maxon, Bartley D., St. Louis, MI, United States
       Piehler, Lars T., Midland, MI, United States
       Tomlinson, Ian A., Midland, MI, United States
       Wilson, Larry R., Beaverton, MI, United States
       Yin, Rui, Mt. Pleasant, MI, United States
       Brothers, II, Herbert M., Midland, MI, United States
PA
       The Dow Chemical Company, Midland, MI, United States (U.S. corporation)
       Dendritech Incorporated, Midland, MI, United States (U.S. corporation)
       The Regents of the University of Michigan, Ann Arbor, MI, United States
       (U.S. corporation)
       US 5714166
PI
                               19980203
       US 1995-400203
                               19950307 (8)
AΙ
RLI
       Continuation-in-part of Ser. No. US 1994-316536, filed on 30 Sep 1994,
       now abandoned which is a continuation-in-part of Ser. No. US
       1994-207494, filed on 7 Mar 1994, now abandoned which is a division of
       Ser. No. US 1993-43198, filed on 5 Apr 1993, now patented, Pat. No. US
       5527524, issued on 18 Jun 1996 And a continuation-in-part of Ser. No. US
       1993-43198, filed on 5 Apr 1993, now patented, Pat. No. US 5527524,
       issued on 18 Jun 1996 which is a continuation-in-part of Ser. No. US
       1991-654851, filed on 13 Feb 1991, now patented, Pat. No. US 5338532,
       issued on 16 Aug 1994 which is a continuation-in-part of Ser. No. US
       1989-386049, filed on 26 Jul 1989, now abandoned which is a
       continuation-in-part of Ser. No. US 1987-87266, filed on 18 Aug 1987,
       now abandoned which is a continuation-in-part of Ser. No. US
       1986-897455, filed on 18 Aug 1986, now abandoned
DT
       Utility
       Granted
FS
EXNAM
      Primary Examiner: Kishore, Gollamudi S.
LREP
       Kimble, Karen L.
CLMN
       Number of Claims: 136
ECL
       Exemplary Claim: 1
DRWN
       89 Drawing Figure(s); 68 Drawing Page(s)
LN.CNT 7574
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Dendritic polymer conjugates which are composed of at least one
       dendrimer in association with at least one unit of a carried material,
       where the carrier material can be a biological response modifier, have
       been prepared. The conjugate can also have a target director present,
       and when it is present then the carried material may be a bioactive
       agent. Preferred dendritic polymers are dense star polymers, which have
       been complexed with biological response modifiers. These conjugates and
       complexes have particularly advantageous properties due to their unique
       characteristics.
```

ANSWER 9 OF 9 USPATFULL on STN L897:76010 USPATFULL ANSelf-assembling polynucleotide delivery system comprising TIdendrimer polycations Szoka, Jr., Francis C., 45 Mendosa Ave., San Francisco, CA, United IN States 94116 Haensler, Jean, 117, Rue Principale, 57540 Petite-Rosselle, France PΙ US 5661025 19970826 ΑI US 1995-480463 19950607 (8) RLI Division of Ser. No. US 1993-92200, filed on 14 Jul 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-913669, filed on 14 Jul 1992 which is a continuation-in-part of Ser. No. US 1992-864876, filed on 3 Apr 1992, now abandoned DTUtility FS Granted EXNAM Primary Examiner: Robinson, Douglas W.; Assistant Examiner: Wai, Thanda CLMN Number of Claims: 6 Exemplary Claim: 1 ECL 13 Drawing Figure(s); 8 Drawing Page(s) DRWN LN.CNT 2060 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A self-assembling polynucleotide delivery system comprises a dendrimer polycation aiding in the delivery of the polynucleotide to a desired address, and optionally other agents such as DNA masking agents, cell

recognition agents, charge-neutralization agents, membranepermeabilization agents, and subcellular-localization agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

FILE 'HOME' ENTERED AT 08:53:42 ON 23 MAY 2004

=> file reg

COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE

ENTRY SESSION

0.84

34 0.84

TOTAL

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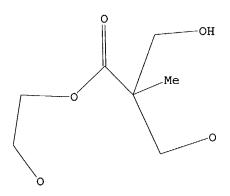
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*** YOU HAVE NEW MAIL ***

Uploading C:\Program Files\Stnexp\Queries\09963858.str

L1 STRUCTURE UPLOADED

=> d l1 L1 HAS NO ANSWERS L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full FULL SEARCH INITIATED 08:56:13 FILE 'REGISTRY'



FULL SCREEN SEARCH COMPLETED - 19241 TO ITERATE

100.0% PROCESSED 19241 ITERATIONS

SEARCH TIME: 00.00.01

L2 50 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 155.42 156.26

50 ANSWERS

FULL ESTIMATED COST

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 12

L3 28 L2

=> s 13 and dendrim?

7025 DENDRIM?

L4 4 L3 AND DENDRIM?

=> d l4 bib abs hitstr 1-4

- L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2002:177385 CAPLUS
- DN 136:379251
- TI Effect of multivalency on the performance of enantioselective separation media for chiral HPLC prepared by linking multiple selectors to a porous polymer support via aliphatic dendrons
- AU Ling, Frank H.; Lu, Victor; Svec, Frantisek; Frechet, Jean M. J.
- CS Department of Chemistry, University of California, Berkeley, CA, 94720-1460, USA
- SO Journal of Organic Chemistry (2002), 67(7), 1993-2002 CODEN: JOCEAH; ISSN: 0022-3263
- PB American Chemical Society
- DT Journal
- LA English
- AB Chiral stationary phases (CSPs) containing L-proline indananilide chiral selectors attached through a multivalent dendritic linker to monodisperse macroporous poly(2-hydroxyethyl methacrylate-co-ethylene dimethacrylate) beads were prepared using two different approaches. The convergent method

involves the preparation of ligands in solution and their subsequent attachment to

the support. The divergent approach is based on the stepwise on-bead formation of the linker using methods that are typical of solid-phase synthesis. While the convergent CSPs feature well-defined ligands, their loading is relatively low. In contrast, the divergent technique affords CSPs with higher loading but with more limited control over precise ligand architecture. Excellent enantioselectivities characterized by separation factors of up to 31 were achieved for the separation of racemic N-(3,5-dinitrobenzoyl)- α -amino acid alkyl amides with these new CSPs under normal-phase HPLC conditions.

IT 424829-28-7P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in preparation of HPLC stationary phases containing L-proline indananilide chiral selectors using multivalent dendritic linker to macroporous poly(2-hydroxyethyl methacrylate-co-ethylene dimethacrylate) beads)

RN 424829-28-7 CAPLUS

CN 5,8,11,14-Tetraoxa-2-azaheptadecanoic acid, 17-hydroxy-16-(hydroxymethyl)-16-methyl-15-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:64452 CAPLUS

DN 136:248193

TI Manipulation of Hyperbranched Polymers' Conformation

AU Mackay, Michael E.; Carmezini, Glenda

CS Department of Chemical Engineering and Materials Science, Michigan State University, East Lansing, MI, 48824, USA

SO Chemistry of Materials (2002), 14(2), 819-825 CODEN: CMATEX; ISSN: 0897-4756

PB American Chemical Society

DT Journal

LA English

AB The hydrodynamic volume for a series of hyperbranched polymers was studied to determine the volume change in a variety of solvents. The chemical different

interior core and branching units were found to readily expand and contract by a factor of 2 creating large or small free volume, resp. Furthermore, a solvent that maximally swells the polymer created a viscosimetric (hydrodynamic) radius which changed linearly with mol. mass. This is contrary to what is expected for **dendrimers** where the radius has been shown to scale with $\ln(M)$. A model was developed to

account for the effect of mol. mass polydispersity on the intrinsic viscosity (viscosimetric volume), since hyperbranched polymers are polydisperse in nature, and it was found that this did not affect the observation. Solvents that contracted the hyperbranched polymers showed a complicated hydrodynamic radius scaling with mass. It was generally concluded that these polymers readily change volume with solvent effects important in influencing the change. Further results with a similar hyperbranched polymer having alkane rather than hydrogen end groups revealed a polymer that did not swell or contract as much (10% variation) for a wide range of solvents. In addition, this polymer had lower overall free volume and was found to behave in a manner that was quite similar to sterically stabilized particles. Thus, the core-shell mol. morphol., as well as its utility, depends quite strongly on the end groups and rational design of hyperbranched mols. must consider thermodn. interactions with the solvent and within the mol. itself.

IT 404031-09-0

RL: PRP (Properties)

(manipulation of conformation of hyperbranched polyesters)

RN 404031-09-0 CAPLUS

CN Propanoic acid, 3-hydroxy-2-[[3-hydroxy-2-[[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]methyl]-2-methyl-1-oxopropoxy]methyl]-2-methyl-,
[2,2-bis[15-hydroxy-10-[[3-hydroxy-2-(hydroxymethyl)-2-methyl-1oxopropoxy]methyl]-14-(hydroxymethyl)-10,14-dimethyl-9,13-dioxo-2,5,8,12tetraoxapentadec-1-yl]-1,3-propanediyl]bis(oxy-2,1-ethanediyl) ester (9CI)
(CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c} & \text{O} & \text{CH}_2-\text{OH} \\ \parallel & \mid \\ \text{CH}_2-\text{O}-\text{C}-\text{C}-\text{CH}_2-\text{OH} \\ \mid & \mid \\ \text{R} & \text{Me} \end{array}$$

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:412545 CAPLUS

DN 135:153183

TI Fast and Convenient Divergent Synthesis of Aliphatic Ester **Dendrimers** by Anhydride Coupling

AU Ihre, Henrik; Padilla de Jesus, Omayra L.; Frechet, Jean M. J.

CS Center for New Directions in Organic Synthesis Department of Chemistry, University of California, Berkeley, CA, 94720-1460, USA

SO Journal of the American Chemical Society (2001), 123(25), 5908-5917 CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

AB A novel divergent approach was developed for the synthesis of dendritic aliphatic polyester structures using an acetal-protected anhydride derivative of

2,2-bis(hydroxymethyl)propionic acid as the acylating agent. This divergent synthesis is remarkable, because unlike all others, it only requires a small excess of reagent to achieve quant. growth, and it requires no means of purification other than a simple solvent extraction or precipitation A

monodisperse sixth generation dendrimer with mol. weight of 30 711 Dalton and 192 masked hydroxyl groups was prepared in high yield and purity using 1,1,1-tris(hydroxyphenyl)ethane as the core mol. Linear and star-shaped poly(ethylene glycol) (PEG) derivs. of narrow polydispersity were also used as core mols. in the divergent synthesis of dendritic-linear copolymer hybrids up to the fourth generation without requiring any chromatog. purification

IT 352708-11-3P 352708-19-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(divergent synthesis of aliphatic ester dendrimers by anhydride

coupling)

RN352708-11-3 CAPLUS

Poly(oxy-1,2-ethanediyl), α -[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-CN oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)

352708-19-1 CAPLUS RN

Poly(oxy-1,2-ethanediyl), α -[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-CNoxopropy1]-ω-[3-hydroxy-2-(hydroxymethy1)-2-methy1-1-oxopropoxy]-(9CI) (CA INDEX NAME)

RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:531671 CAPLUS

DN 133:152037

TIPigment compositions containing dendrimers

Vincent, Mark John; Chisholm, Greig IN

Ciba Specialty Chemicals Corporation, USA PA

SO U.S., 12 pp. CODEN: USXXAM

DTPatent

English LA

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE					
				*						
PΙ	US 6096801	Α	20000801	US 1998-81428	19980519					
	EP 882772	A1	19981209	EP 1998-304165	19980527					
	EP 882772		20030625							
	R: AT,	BE, CH, DE	, DK, ES, FR,	GB, GR, IT, LI, LU	, NL, SE, MC, PT,					
	IE,	SI, LT, LV	, FI, RO							
PRAI	GB 1997-116:	25 A	19970606							
	US 1998-814:									
AB	The title compns. comprise a pigment selected from the group consisting of									
an azo, azo metal salt or complex, azomethine, azomethine salt or complex										
	phthalocyanine, anthraquinone, isoindoline, perinone, quinacridone and									
	dipyrrolopyrrole pigment and mixts, thereof and from 0.1 to 10% by weight									

dipyrrolopyrrole pigment and mixts. thereof and from 0.1 to 10% by weight, based on the weight of pigment, of at least one dendrimer.

IT 287104-93-2, Boltorn RTM 2G

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(Boltorn RTM 2G; pigment compns. containing dendrimers)

RN287104-93-2 CAPLUS

Propanoic acid, 2,2-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]-, CN

2,2-bis[[2,2-bis[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]-1-oxopropoxy]methyl]-1,3-propanediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

The touch panels comprise an antiglare coat derived by curing a composition containing fluoro polyfunctional (meth) acrylate esters. A PET film was applied with an acrylic hard coat, coated with a high refractive material, coated with an antiglare composition containing 1,2,9,10-Tetraacryloyloxy-4,4,5,5,6,6,7,7-octafluorodecane 50, an isomeric mixture of CH2CHCO2CH2CMe(CH2O2CCHCH2)CO2CH2CH(OH)CH2(CF2)8F and CH2CHCO2CH2CMe(CH2O2CCHCH2)CO2CH(CH2OH)CH2CH2(CF2)8F 10, XBA ST silica sol 133, D 116, and trifluoromethylbenzene 400 parts and deposited on the the side with an ITO layer to give an antiglare ITO conductive film. A glass panel was coated by the same way to give an antiglare panel with ITO layer. Tape bonding the PET film and the glass panel around the edge with ITO layers faced each other gave a touch panel, which when placed on a display element showed good contrast.

IT 283178-15-4P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (antiglare touch panels with good contrast of light transmission and manufacture thereof)

RN 283178-15-4 CAPLUS

0955563

CN 2-Propenoic acid, 4,4,5,5,6,6,7,7-octafluoro-1,2,9,10-decanetetrayl ester, polymer with 5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heptadecafluoro-2-[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]dodecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-[[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]methyl]dec yl 2-propenoate and 2-[[[4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-1-(hydroxymethyl)undecyl]oxy]carbonyl]-2-methyl-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 283178-14-3 CMF C23 H21 F17 O7

CM 2

CRN 283178-13-2 CMF C23 H21 F17 O7

CM 3

CRN 200638-82-0 CMF C22 H19 F17 O7

CM 4

CRN 194877-44-6 CMF C22 H22 F8 O8

precoated with dipentaerythritol hexaacrylate and polyethylene

obtain a scratch-resistant product with refractive index 1.446.

glycol diacrylate (photocured) and cured by electron beam irradiation to

IT 200639-25-4P 200639-27-6P 200639-29-8P

RN

CN

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluorinated polyfunctional (meth)acrylate esters, compns.,

low-refraction materials, and antireflection films)

200639-25-4 CAPLUS

2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-(hydroxymethyl)-2-methyl-3-oxo-3[[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-[[(1-oxo-2-propenyl)oxy]methyl]octyl]oxy]propyl 2-propenoate, 2-(hydroxymethyl)-2-methyl-3-oxo-3-[[4,4,5,5,6,6,7,7,8,8,9,9,9-tridecafluoro-2-[(1-oxo-2-propenyl)oxy]nonyl]oxy]propyl 2-propenoate, 2-methyl-2[[[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-(hydroxymethyl)octyl]oxy]carb onyl]-1,3-propanediyl di-2-propenoate and 2-methyl-2[[(4,4,5,5,6,6,7,7,8,8,9,9,9-tridecafluoro-2-hydroxynonyl)oxy]carbonyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 200639-17-4 CMF C20 H19 F13 O7

CM 2

CRN 200639-15-2 CMF C20 H19 F13 O7

CM 3

CRN 200639-11-8 CMF C20 H19 F13 O7

CRN 200639-08-3 CMF C20 H19 F13 O7

CM 5

CRN 4986-89-4 CMF C17 H20 O8

RN 200639-27-6 CAPLUS

CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[[3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-(hydroxymethyl)decyl]oxy]carbonyl]-2-methyl-1,3-propanediyl di-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-[[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]methyl]decyl 2-propenoate, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]undecyl 2-propenoate and 2-[[(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl)oxy]carbonyl]-2-methyl-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 200638-90-0 CMF C22 H19 F17 O7

$$\begin{array}{c} O \\ || \\ H_2C = CH - C - O - CH_2 & O & CH_2 - OH & O \\ | & || & | & || \\ F_3C - (CF_2)_7 - CH_2 - CH - O - C - C - CH_2 - O - C - CH = CH_2 \\ | & | \\ Me \end{array}$$

CRN 200638-86-4 CMF C22 H19 F17 O7

CM 3

CRN 200638-82-0 CMF C22 H19 F17 O7

CM 4

CRN 200638-79-5 CMF C22 H19 F17 O7

CM 5

CRN 4986-89-4 CMF C17 H20 O8

RN 200639-29-8 CAPLUS

CN 2-Propenoic acid, 2-[[[3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-(hydroxymethyl)decyl]oxy]carbonyl]-2-methyl-1,3-propanediyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-[[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]methyl]decyl 2-propenoate,
4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]undecyl
2-propenoate, 2-[[(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl)oxy]carbonyl]-2-methyl-1,3-propanediyl di-2-propenoate and 4,4,5,5,6,6,7,7-octafluoro-1,2,9,10-decanetetrayl tetra-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 200638-90-0 CMF C22 H19 F17 O7

CM 2

CRN 200638-86-4 CMF C22 H19 F17 O7

CM 3

CRN 200638-82-0 CMF C22 H19 F17 O7

CRN 200638-79-5 CMF C22 H19 F17 O7

CM 5

CRN 194877-44-6 CMF C22 H22 F8 O8

IT 200638-73-9P 200638-75-1P 200638-82-0P

200638-90-0P 200638-98-8P 200639-02-7P

200639-11-8P 200639-17-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(fluorinated polyfunctional (meth) acrylate esters, compns.,

low-refraction materials, and antireflection films)

RN 200638-73-9 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-,

4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl ester (9CI) (CA INDEX NAME)



RN 200638-75-1 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-(hydroxymethyl)decyl ester (9CI) (CA INDEX NAME)

RN 200638-82-0 CAPLUS

CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-[[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2propenyl)oxy]propoxy]methyl]decyl ester (9CI) (CA INDEX NAME)

RN 200638-90-0 CAPLUS

CN 2-Propenoic acid, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]undecyl ester (9CI) (CA INDEX NAME)

$$_{\rm H_2C}$$
 $=$ $_{\rm CH-C-O-CH_2}$ $_{\rm CH_2-OH}$ $_{\rm O}$ $_{\rm H_2C}$ $=$ $_{\rm CH-C-O-CH_2}$ $_{\rm CH_2-O-C-CH_2-O-C-CH_2}$ $_{\rm CH_2-O-C-CH_2-O-C-CH_2}$ $_{\rm CH_2-O-C-CH_2-O-C-CH_2-CH_2}$

RN 200638-98-8 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 4,4,5,5,6,6,7,7,8,8,9,9,9-tridecafluoro-2-hydroxynonyl ester (9CI) (CA INDEX NAME)

RN 200639-02-7 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-(hydroxymethyl)octyl ester (9CI) (CA INDEX NAME)

RN 200639-11-8 CAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-methyl-3-oxo-3[[4,4,5,5,6,6,7,7,8,8,9,9,9-tridecafluoro-2-[(1-oxo-2propenyl)oxy]nonyl]oxy]propyl ester (9CI) (CA INDEX NAME)

$$HO-CH_2$$
 O
 $|O$
 $|O$

RN 200639-17-4 CAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-methyl-3-oxo-3-[[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-[[(1-oxo-2-propenyl)oxy]methyl]octyl]oxy]propyl ester (9CI) (CA INDEX NAME)

L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:543488 CAPLUS

DN 127:163228

TI Epoxy resin aqueous dispersions with low volatiles content and good pot life for coatings

IN Elmore, Jimmy Dale; Stark, Charles John; Tipton, Merry

PA Yuka Shell Epoxy Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN. CNT 1

TAN.CNI I									
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE				
			-						
ΡI	JP 09169854	A2	19970630	JP 1996-283927	19961025				
	JP 3444731	B2	20030908						
PRAI	US 1995-551208	Α	19951031						

AB The title dispersions comprise water, epoxy resins with ≥0.5 epoxy functionality, 1-20% (based on epoxy resin) nonionic surfactants, and 0.1-20% (based on epoxy resin) epoxy functional hydroxy ester cosurfactant(s). Epon-828 676.92, SP-1090 66, bisphenol A 203.1, 80:20 polyethylene polypropylene glycol glycidyl ether 66, and

ethyltriphenylphosphinium iodide were heated at 177° for 1 h to epoxy equivalent 663, cooled to 135°, treated with 44 g QO(CH2)4OCH2CH(OH)CH2O2CC(CH2OH)2Me (Q = glycidyl), cooled to 120°, treated with 274 g water over 2.5 h for conversion to oil-in-water dispersion, concentrated in vacuo with removal of 15 g water at 65°, treated with 44 g Heloxy 9, thinned with 560 g water, and filtered to give a 57.7%-solids dispersion with no volatile orgs. and excellent freeze-drying stability, forming high-gloss films.

IT 193293-64-0P 193293-65-1P 193293-66-2P 193486-55-4P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(epoxy resin aqueous dispersions with low volatiles content and good pot life for coatings)

RN 193293-64-0 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-,
2-hydroxy-3-[4-(oxiranylmethoxy)butoxy]propyl ester, polymer with
(chloromethyl)oxirane, formaldehyde, Heloxy 9, 4,4'-(1methylethylidene)bis[phenol], methyloxirane block polymer with oxirane
mono(oxiranylmethyl) ether, and 4-nonylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 180268-44-4 CMF C15 H28 O8

CM 2

CRN 169313-57-9 CMF Unspecified CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 106-89-8 CMF C3 H5 Cl O

CM 4

CRN 104-40-5 CMF C15 H24 O

$$^{(CH_2)_8-Me}$$

CRN 80-05-7 CMF C15 H16 O2

CM 6

CRN 50-00-0 CMF C H2 O

$H_2C = 0$

CM 7

CRN 172139-41-2

CMF C3 H6 O2 . (C3 H6 O . C2 H4 O) \mathbf{x}

CM 8

CRN 556-52-5 CMF C3 H6 O2

CM 9

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 10

CRN 75-56-9 CMF C3 H6 O

CRN 75-21-8 CMF C2 H4 O



CN

RN 193293-65-1 CAPLUS

Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 2-hydroxy-3-[4-(oxiranylmethoxy)butoxy]propyl ester, polymer with (chloromethyl)oxirane, formaldehyde, 4,4'-(1-methylethylidene)bis[phenol], methyloxirane block polymer with oxirane mono(oxiranylmethyl) ether, 4-nonylphenol and [[3-(trifluoromethyl)phenoxy]methyl]oxirane (9CI) (CA INDEX NAME)

CM 1

CRN 180268-44-4 CMF C15 H28 O8

CM 2

CRN 585-45-5 CMF C10 H9 F3 O2

CM 3

CRN 106-89-8 CMF C3 H5 Cl O

09

CM 4

CRN 104-40-5 CMF C15 H24 O

$$_{
m HO}$$
 (CH₂) $_{
m 8}-{
m Me}$

CM 5

CRN 80-05-7 CMF C15 H16 O2

CM 6

CRN 50-00-0 CMF C H2 O

$H_2C = 0$

CM 7

CRN 172139-41-2 CMF C3 H6 O2 . (C3 H6 O . C2 H4 O) x

CM 8

CRN 556-52-5 CMF C3 H6 O2

CM 9

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O) \mathbf{x}

CCI PMS

CM 10



CRN 75-56-9 CMF C3 H6 O



CM 11

CRN 75-21-8 CMF C2 H4 O



RN 193293-66-2 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 2-hydroxy-3-[4-(oxiranylmethoxy)butoxy]propyl ester, polymer with (chloromethyl)oxirane, formaldehyde, 4,4'-(1-methylethylidene)bis[phenol], methyloxirane block polymer with oxirane mono(oxiranylmethyl) ether, 4-nonylphenol and oxiranylmethyl tert-decanoate (9CI) (CA INDEX NAME)

CM 1

CRN 180268-44-4 CMF C15 H28 O8

CM 2

CRN 71206-09-2 CMF C13 H24 O3 CCI IDS

CM 3

CRN 106-89-8 CMF C3 H5 Cl O

CRN 104-40-5 CMF C15 H24 O

$$_{\mathrm{HO}}$$
 (CH₂)₈-Me

CM 5

CRN 80-05-7 CMF C15 H16 O2

CM 6

CRN 50-00-0 CMF C H2 O

$H_2C = 0$

CM '

CRN 172139-41-2

CMF C3 H6 O2 . (C3 H6 O . C2 H4 O) \boldsymbol{x}

CM 8

CRN 556-52-5 CMF C3 H6 O2

$$\overset{\mathtt{O}}{\longleftarrow}_{\mathtt{CH_2}-\mathtt{OH}}$$

CM 9

0

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 10

CRN 75-56-9

CMF C3 H6 O



CM 11

CRN 75-21-8

CMF C2 H4 O



CN

RN 193486-55-4 CAPLUS

Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 2-hydroxy-3-[4-(oxiranylmethoxy)butoxy]propyl ester, polymer with (chloromethyl)oxirane, Epicure 8535, formaldehyde, Heloxy 9, 4,4'-(1-methylethylidene)bis[phenol], methyloxirane block polymer with oxirane mono(oxiranylmethyl) ether and 4-nonylphenol (9CI) (CA INDEX NAME)

CM 1

CRN 194554-72-8

CMF Unspecified

CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 180268-44-4

CMF C15 H28 O8

CM 3

CRN 169313-57-9

CMF Unspecified

CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 106-89-8 CMF C3 H5 Cl O

CM 5

CRN 104-40-5 CMF C15 H24 O

$$(CH_2)_8$$
-Me

CM 6

CRN 80-05-7 CMF C15 H16 O2

CM '

CRN 50-00-0 CMF C H2 O

$H_2C = 0$

CM 8

CRN 172139-41-2

CMF C3 H6 O2 . (C3 H6 O . C2 H4 O) x

CM 9

CRN 556-52-5 CMF C3 H6 O2

CRN 106392-12-5

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 11

CRN 75-56-9

CMF C3 H6 O



CM 12

CRN 75-21-8

CMF C2 H4 O



IT 193222-60-5P 193296-33-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(Reactant of reagent)
(epoxy resin aqueous dispersions with low volatiles content and good pot

life for coatings)

RN 193222-60-5 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-,

2-hydroxy-3-[[4-[1-methyl-1-[4-(oxiranylmethoxy)cyclohexyl]ethyl]cyclohexy

l]oxy]propyl ester (9CI) (CA INDEX NAME)

RN 193296-33-2 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 2-hydroxy-3-[methyl-2-(oxiranylmethoxy)ethoxy]propyl ester (9CI) (CA

INDEX NAME)

D1-Me

L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1981:183294 CAPLUS

DN 94:183294

TI Correlation of adsorption and sensitizing properties of some phosphorylated **polyethylene** glycols

AU Gorokhovskii, V. M.; Kuzovenko, N. M.; Giniyatullina, R. Sh.; Vasil'chenko, V. I.

CS Kazan. Nauchno-Issled. Tekhnol. Proektn. Inst. Khim.-Fotogr. Prom., Kazan, USSR

SO Zhurnal Nauchnoi i Prikladnoi Fotografii i Kinematografii (1981), 26(1), 53-4
CODEN: ZNPFAG; ISSN: 0044-4561

DT Journal

LA Russian

AB The d.c. polarographs of poly(decaethylene glycol) ethyl phosphate (I) and pentaerythritol di(polyethylene glycol) phosphate (II) in the potential range 0-2 W indicated lack of electron acceptor characteristics in the studied compds. High value of adsorption parameters for II compared to I correlated with its high sensitizing properties. The correlation of adsorption activity and sensitizing properties of I and II (introduced either into a Ag halide photog. emulsion or into a developer) with mol. weight of I and II is explained by their adsorption near latent image centers or on metallic Ag particles during development.

IT 77466-49-0

RL: USES (Uses)

(as photog. sensitizer, correlation of adsorption and sensitizing properties of)

RN 77466-49-0 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α' -[2,2-bis(hydroxymethyl)-1,3-propanediyl]bis[ω -hydroxy-, phosphate (9CI) (CA INDEX NAME)

CM 1

CRN 67875-39-2

CMF (C2 H4 O)n C5 H10 O4

CCI PMS

HO
$$CH_2 - CH_2 - O$$
 n $CH_2 - OH$ $CH_2 - OH$

CM 2

CRN 7664-38-2 CMF H3 O4 P

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1

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=> d hi
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=> d his (FILE 'HOME' ENTERED AT 08:53:42 ON 23 MAY 2004) FILE 'REGISTRY' ENTERED AT 08:55:49 ON 23 MAY 2004 STRUCTURE UPLOADED L150 S L1 FULL L2FILE 'CAPLUS' ENTERED AT 08:56:19 ON 23 MAY 2004 L3 28 S L2 4 S L3 AND DENDRIM? L4 L5 5 S L3 AND POLYETHYLENE 4 S L5 NOT L4 L6 4 DUP REM L6 (0 DUPLICATES REMOVED) **L7** => s 13 not 14 24 L3 NOT L4 => s 18 not 17 4 S L7 L9T-10 20 L8 NOT L9 => dup rem 110 PROCESSING COMPLETED FOR L10 L1120 DUP REM L10 (0 DUPLICATES REMOVED) => d l11 bib abs hitstr 1-20 L11 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN AN 2003:36600 CAPLUS DN 138:91513 ΤI Binder resin compositions for high-solid primers for polyolefins with high octane gasohol resistance TN Urata, Keiji; Ozaki, Keizo Nippon Paper Industries Co., Ltd., Japan PΔ Jpn. Kokai Tokkyo Koho, 13 pp. SO CODEN: JKXXAF DT Patent LA Japanese FAN.CNT 1 APPLICATION NO. DATE PATENT NO. KIND DATE JP 2002-15113 US 2002-94618 JP 2003012999 A2 20030115 PΙ 20020124 US 2003055163 A1 20030320 20020312 US 6699932 B2 20040302 PRAI JP 2001-127109 A 20010425 JP 2002-15113 Α 20020124 Title compns. comprise 100 parts blends of 50-90% chlorinated COOH-containing AB polyolefins prepared by graft polymerization with 1-10% unsatd. carboxylic acid (anhydrides) and having Cl content of 10-30%, polydispersity (Mw/Mn) of 1.5-3.5, and ≤2% components with weight-average mol. weight of ≤2,000 and 10-50% ketone resins with number-average mol. weight of 500-2,000 and 10-200 parts (a) alkoxylated malamine (AMN) and carbamato compds., (b) AMN and OH-containing compds., and/or (c) NCO compds. and OH-containing compds. polypropylene plate was sprayed with a xylene solution containing Halon 80 30, chlorinated and maleated polypropylene (Cl content 25%, maleic anhydride 3.6%, Mw/Mn 2.54) 50, Melan 28D 6.7, carbamato acrylic resin (prepared from unsatd. methylxylylene isocyanate, 2-ethylhexyl acrylate, and hydroxypropyl carbamate) 13.3 parts, and acid catalyst, dried, sprayed

with a clear urethane coating, and baked at 120° for 30 min to form a film showing good adhesion even after 240 h in 40° water, 240 h at 50° and 98% relative humidity, and 1 h in 45:45:10 PhMe/isooctane-EtOH solution

IT 199873-03-5P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(for carbamato oligomer preparation; chlorinated maleated polyolefin, polyketone, carbamate, and alkoxymelamine binder compns. for primers for polyolefins for octane gasohol resistance)

RN 199873-03-5 CAPLUS

CN Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]propyl ester (9CI) (CA INDEX NAME)

L11 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:488258 CAPLUS

DN 137:64643

TI High solid paint compositions

IN Matsuno, Yoshizumi; Onoda, Hiroyuki; Noguchi, Takashi; Isaka, Hisashi

PA Japan

SO U.S. Pat. Appl. Publ., 15 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

+ 4	IV. CIVI 2						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PΙ	US 2002082341	A1	20020627	US 2001-984793	20011031		
	JP 2002138247	A2	20020514	JP 2000-334638	20001101		
	JP 2002275411	A2	20020925	JP 2001-79727	20010321		
	JP 2002201430	A2	20020719	JP 2001-153437	20010523		
	JP 2002348529	A2	20021204	JP 2001-153438	20010523		
PR	AI JP 2000-334638	Α.	20001101				
	JP 2000-334639	Α	20001101				
	JP 2001-79727	Α	20010321				
	JP 2001-153437	Α	20010523				
	JP 2001-153438	Α	20010523				
AB	High solids pain	COMP	ns comprise a	hydroxyl-containi	ng compour		

AB High solids paint compns. comprise a hydroxyl-containing compound having a weight-average mol. weight (Mw) ≤1000 and OH value 200-800 mg KOH/g, and a polyisocyanate compound for forming multi-layered coating film. The above compns. may also contain melamine resin crosslinker, high weight hydroxy-containing resin, alkoxysilyl compound, cure catalyst, and rheol. control agent.

IT 199873-03-5P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(for high-solid solvent-based paints having good appearance, chemical and mar resistance)

RN 199873-03-5 CAPLUS

CN Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]propyl ester (9CI) (CA INDEX NAME)

IT 439685-54-8P 439685-55-9P 439685-56-0P 439685-57-1P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(high-solid solvent-based paints having good appearance, chemical and mar resistance)

RN 439685-54-8 CAPLUS

CN Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]propyl ester, polymer with Desmodur N 3300 and 2-isocyanatoethyl 2,6-diisocyanatohexanoate (9CI) (CA INDEX NAME)

CM 1

CRN 199873-03-5 CMF C18 H34 O7 CCI IDS

CM 2

CRN 104559-01-5 CMF Unspecified CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 69878-18-8 CMF C11 H13 N3 O5

$$\begin{array}{c|c} & \text{O} & \text{NCO} \\ & \parallel & \parallel \\ & \text{OCN-CH}_2\text{-CH}_2\text{-CH}_2\text{-CH-(CH}_2)}_4\text{-NCO} \end{array}$$

RN 439685-55-9 CAPLUS

CN Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]propyl ester, polymer with Desmodur N 3300, formaldehyde and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 199873-03-5 CMF C18 H34 O7 CCI IDS

CRN 104559-01-5

CMF Unspecified

CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 108-78-1

CMF C3 H6 N6

CM 4

CRN 50-00-0 CMF C H2 O

 $H_2C = 0$

RN 439685-56-0 CAPLUS

CN Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]propyl ester, polymer with butyl 2-propenoate, Desmodur N 3300, ethenylbenzene, 2-ethylhexyl 2-propenoate, formaldehyde, 2-hydroxyethyl 2-methyl-2-propenoate, 2-methylpropyl 2-methyl-2-propenoate, 2-propenoic acid and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 199873-03-5 CMF C18 H34 O7

CCI IDS

CRN 104559-01-5

CMF Unspecified

CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 868-77-9

CMF C6 H10 O3

CM 4

CRN 141-32-2

CMF C7 H12 O2

$$\begin{matrix} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{matrix} = \text{CH}_2$$

CM 5

CRN 108-78-1 CMF C3 H6 N6

CM 6

CRN 103-11-7

CMF C11 H20 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_2-\text{O}-\text{C}-\text{CH} \Longrightarrow \text{CH}_2 \\ \parallel \\ \text{Et}-\text{CH}-\text{Bu-n} \end{array}$$

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09567863
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CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$

CM 8

CRN 97-86-9 CMF C8 H14 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ i\text{-BuO-C-C-Me} \end{array}$$

CM 9

CRN 79-10-7 CMF C3 H4 O2

CM 10

CRN 50-00-0 CMF C H2 O

 $H_2C = 0$

RN 439685-57-1 CAPLUS

CN Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]propyl ester, polymer with butyl 2-propenoate, Desmodur N 3300, ethenylbenzene, 2-ethylhexyl 2-propenoate, formaldehyde, 2-hydroxyethyl 2-methyl-2-propenoate, 2-methylpropyl 2-methyl-2-propenoate, 2-propenoic acid, 1,3,5-triazine-2,4,6-triamine and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 199873-03-5 CMF C18 H34 O7 CCI IDS

CM 2

CRN 104559-01-5 CMF Unspecified CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 2530-85-0 CMF C10 H20 O5 Si

$$\begin{array}{c|c} ^{\rm H_2C} & {\rm O} & {\rm OMe} \\ \parallel & \parallel & \parallel \\ {\rm Me-C-C-O-(CH_2)_3-Si-OMe} \\ & \parallel & \parallel \\ & {\rm OMe} \end{array}$$

CM 4

CRN 868-77-9 CMF C6 H10 O3

CM 5

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-----} \text{CH}_2 \end{array}$$

CM 6

CRN 108-78-1 CMF C3 H6 N6

CM 7

CRN 103-11-7 CMF C11 H20 O2

$$\begin{array}{c} \circ \\ \parallel \\ \mathsf{CH}_2 - \mathsf{O} - \mathsf{C} - \mathsf{CH} = \mathsf{CH}_2 \\ \mid \\ \mathsf{Et} - \mathsf{CH} - \mathsf{Bu} - \mathsf{n} \end{array}$$

CM 8

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 9

CRN 97-86-9 CMF C8 H14 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{i-BuO-C-C-Me} \end{array}$$

CM 10

CRN 79-10-7 CMF C3 H4 O2

CM 11

CRN 50-00-0 CMF C H2 O

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H_2C = O
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L11 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:336587 CAPLUS

DN 134:359533

TI Negatively-working lithographic printing plate material containing polyurethane binder

IN Azuma, Tatsuji; Fujimaki, Kazuhiro

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 60 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 2001125257 A2 20010511 JP 1999-309585 19991029
PRAI JP 1999-309585 19991029

AB The material comprises an Al support having thereon a photopolymerizable layer containing an alkali-soluble polyurethane binder with an ethylenically unsatd. polymerizable group at the side chain, a compound with an addition-polymerizable ethylenically unsatd. double bond, and a photopolymn. initiator. The binder is a reaction product of a diisocyanate and a diol having ethylenically unsatd. polymerizable groups. The material shows high sensitivity and improved printing durability, especially, prevention of removal of highlight half-tone portion.

IT 338952-79-7P 338952-87-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(binder; neg.-working lithog. plate using photopolymerizable composition of alkali-soluble unsatd. polyurethane and polymerizable compound)

RN 338952-79-7 CAPLUS

CN Butanoic acid, 2,2-bis(hydroxymethyl)-, polymer with 1,6diisocyanatohexane, α-hydro-ω-hydroxypoly(oxy-1,4-butanediyl),
2-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]ethyl
2-methyl-2-propenoate and 1,1'-methylenebis[4-isocyanatobenzene] (9CI)
(CA INDEX NAME)

CM 1

CRN 338952-78-6 CMF C11 H18 O6

CM 2

CRN 25190-06-1 CMF (C4 H8 O)n H2 O CCI PMS

HO
$$\left[(CH_2)_4 - O \right]_n$$

CRN 10097-02-6 CMF C6 H12 O4

$$_{\rm CH_2-OH}^{\rm CH_2-OH}$$
 Et-C-CO₂H $_{\rm CH_2-OH}^{\rm CH_2-OH}$

CM 4

CRN 822-06-0 CMF C8 H12 N2 O2

$$OCN-(CH2)6-NCO$$

CM 5

CRN 101-68-8 CMF C15 H10 N2 O2

RN 338952-87-7 CAPLUS

CN Butanoic acid, 2,2-bis(hydroxymethyl)-, polymer with 1,3-diisocyanatomethylbenzene, α-hydro-ω-hydroxypoly[oxy(methyl-1,2-ethanediyl)], 2-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]ethyl 2-methyl-2-propenoate and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 338952-78-6 CMF C11 H18 O6

CM 2

CRN 26471-62-5 CMF C9 H6 N2 O2 CCI IDS

 ${\tt D1}^-{\tt Me}$

CM 3

CRN 25322-69-4 CMF (C3 H6 O)n H2 O CCI IDS, PMS

$$HO = \begin{bmatrix} (C_3H_6) - O \end{bmatrix}_n H$$

CM 4

CRN 10097-02-6 CMF C6 H12 O4

$$\begin{array}{c} {\rm CH_2-OH} \\ | \\ {\rm Et-C-CO_2H} \\ | \\ {\rm CH_2-OH} \end{array}$$

CM 5

CRN 101-68-8 CMF C15 H10 N2 O2

L11 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:258748 CAPLUS

DN 132:286406

TI Antireflective material for plasma display panels and its manufacture and applications

IN Komatsu, Shinji; Morimoto, Yoshihiro

PA Nippon Oil and Fats Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2000111716 A2 20000421 JP 1998-281552 19981002

PRAI JP 1998-281552 19981002

AB The title antireflective material is a F-containing polyfunctional (meth)acrylate applied and hardened on a substrate, and is adhered by an adhesive blended with a black pigment such as carbon black. The antireflective material consists of a component (A), a F-containing polyfunctional (meth)acrylate 10-100%, and a component (B), a fluoropolymer 0-90%. The process involving UV-hardening of the material is also claimed. This antireflective material is placed the front surface of display devices such as a plasma display panel.

IT 264121-59-7

RL: DEV (Device component use); USES (Uses) (antireflective material for plasma display panels)

RN 264121-59-7 CAPLUS

CN 2-Propenoic acid, 4,4,5,5,6,6,7,7-octafluoro-1,2,9,10-decanetetrayl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-[[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]methyl]dec yl 2-propenoate, 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-[[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2-propenyl)oxy]propoxy]methyl]undecyl 2-propenoate, 2-[[4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-(hydroxymethyl)undecyl]oxy]carbonyl]-2-methyl-1,3-propanediyl di-2-propenoate and 2-[[(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl)oxy]carbonyl]-2-methyl-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 247921-97-7 CMF C23 H21 F17 O7

CM 2

CRN 247921-96-6 CMF C23 H21 F17 O7

CRN 200638-82-0 CMF C22 H19 F17 O7

CM

CRN 200638-79-5 CMF C22 H19 F17 O7

CM

CRN 194877-44-6 CMF C22 H22 F8 O8

L11 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN ΑN 2000:824764 CAPLUS

DN 134:327930

- TI Low VOC carbamate functional coatings compositions for automotive topcoats
- AU Green, Marvin L.
- CS Automotive Coatings Technical Center, BASF Corporation, Southfield, MI, 48034, USA
- SO Proceedings of the International Waterborne, High-Solids, and Powder Coatings Symposium (2000), 27th, 224-239
 CODEN: PIWCF4
- PB University of Southern Mississippi, Dep. of Polymer Science
- DT Journal
- LA English
- AB Polymers and oligomers having carbamate functional groups have been used in a variety of curable coating compns. Carbamate-functional polymers offer many advantages for automotive topcoats such as outstanding resistance to environmental etching, scratching and marring, humidity, and UV exposure. Hydrophobic carbamate oligomers suitable for crosslinking with standard amino resins were synthesized and formulated into stable one-pack automotive clearcoats with low VOC and excellent phys. properties. Because of their unusually steep thermal viscosity curves, these oligomers are particularly adaptable to hot spray techniques that enable coatings in the 85-90% weight solids range to be applied with conventional electrostatic mini-bells.
- IT 199873-03-5P

RN

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(low VOC carbamate functional coatings compns. for automotive topcoats) 199873-03-5 CAPLUS

CN Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]propyl ester (9CI) (CA INDEX NAME)

- L11 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1999:688722 CAPLUS
- DN 131:315628
- TI Near-IR shielding antireflection coating, manufacture and use thereof
- IN Ito, Tetsuya; Komatsu, Shinji
- PA Nippon Oil and Fats Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11295506 JP 1998-93672	A2	19991029 19980406	JP 1998-93672	19980406

AB The near-IR shielding antireflection coating material comprises 10 - 100% F-containing (met)acrylate ester (A), and 90 - 100% F-containing polymer (B), wherein (A) has the form (CH2:CX1CO2)mY1(O2CCX2:CH2)n, and X1-2= H, CH3, and Y1= F-containing hydrocarbon or ester group.

IT 200638-82-0

RL: DEV (Device component use); USES (Uses) (near-IR shielding antireflection coating)

- RN 200638-82-0 CAPLUS
- CN 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-

[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2propenyl)oxy]propoxy]methyl]decyl ester (9CI) (CA INDEX NAME)

L11 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:638669 CAPLUS

DN 131:264588

Electric noise shielding and antireflecting material and its manufacture ΤI

IN Ito, Tetsuya

Nippon Oil and Fats Co., Ltd., Japan PΑ

Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

Patent DT

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 11274792 JP 1998-74723	A2	19991008	JP 1998-74723	19980323
PRAI	JP 1998-74723		19980323		

The invention relates to an elec. noise shielding and antireflecting material, suited for use in an optical display, such as CRT and PDP that generates Rf noise, thus the title material is prepared by coating the antireflecting material composed of 10-100 % of F-containing (meth) acrylate-terminated substances and 90-0% of F-containing (meth)acrylates, on a Rf noise shielding material, such as the substate comprising a conductive mesh layer, an ITO layer, and Ag-deposited layer.

IT 200638-82-0

RL: DEV (Device component use); USES (Uses)

(elec. noise shielding and antireflecting material and its manufacture)

200638-82-0 CAPLUS

2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-CN[[2-(hydroxymethyl)-2-methyl-1-oxo-3-[(1-oxo-2propenyl)oxy]propoxy]methyl]decyl ester (9CI) (CA INDEX NAME)

L11 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN1998:116131 CAPLUS

DN 128:129271

TICurable coating composition

IN Green, Marvin L. PA BASF Corp., USA

SO Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 27

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 816455	A1	19980107	EP 1997-110478	19970626
	R: AT, BE,	CH, DE	, DK, ES, FR,	GB, GR, IT, LI, LU	, NL, SE, MC, PT,
	IE, FI				
	Tus 5852136\	Α	19981222	US 1996-673935	19960701
	CN 1172835	Α	19980211	CN 1997-115552	19970627
	CN 1098323	В	20030108		
	CA 2209437	AA	19980101	CA 1997-2209437	19970630
	AU 9728396	A1	19980115	AU 1997-28396	19970630
	AU 718351	B2	20000413		
	JP 10114871	A2	19980506	JP 1997-176088	19970701
	BR 9703808	A	19981103	BR 1997-3808	19970701
PR	AI US 1996-673935	Α	19960701		

AB A coating composition comprises (A) a carbamate-functional component that is the reaction product of (1) a compound comprising a plurality of OH groups, at least one of which is the result of a ring-opening reaction between an epoxy group and an organic acid group and (2) cyanic acid or a compound comprising a carbamate group, and (B) a component comprising a plurality of groups that are reactive with the carbamate groups on (A). Thus, Glydexx N 10 and dimethylolpropionic acid were esterified, transesterified with excess Me carbamate in toluene containing Bu2Sn oxide, and mixed with hexamethoxymethylmelamine, a catalyst, and amyl acetate to prepare a coating material.

IT 199873-03-5DP, reaction products with Me carbamate and melamine
resins

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(curable coatings containing carbamates and melamine resins)

RN 199873-03-5 CAPLUS

CN Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]propyl ester (9CI) (CA INDEX NAME)

IT 199873-03-5P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(esterification of glycidyl neodecanoate with dimethylolpropionic acid for manufacture of)

RN 199873-03-5 CAPLUS

CN Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]propyl ester (9CI) (CA INDEX NAME)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L11 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 1997:776013 CAPLUS

DN 128:49522

TI Low-volatile-organic-content curable coating compositions utilizing carbamate-functional compounds

IN Green, Marvin L.

PA BASF Corp., USA

SO U.S., 6 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 4

FAN.	-	ENT I	NO.		KI	ND	DATE			API	PLIC	CATIO	ON NO	ο.	DATE			
DŤ			 701		 A		1007	1202		וופ	190	6-6	7393°	 7	1996	0701		
ΡI		5693					19971202 19980107											
	\mathbf{EP}	8164	56		A:	1			EP	EP 1997-110479			9	19970626				
	EΡ	8164	56		B	1	2003	0820										
		R: AT, BE,		ΒE,	CH,	DE.	, DK,	ES,	FR,	GB, C	ЗR,	IT,	LI,	LU,	NL,	SE,	MC,	PΤ,
			ΙE,	FΙ														
	ΑT	2476	99		E		2003	0915		AT	199	97-1	1047	9	1997	0626		
	CN	1172	834		Α		1998	0211		CN	199	97-1	1489	6	1997	0627		
	CA	2209436		A	A	1998	0101		CA	199	97-23	2094	36	1997	0630			
	AU	9728	395		Α	1	1998	0115		AU	199	97-2	8395		1997	0630		
	ΑU	7145	22		В	2	2000	0106										
	JΡ	1010	1992		Α	2	1998	0421		JP	199	97-1	7597	2	1997	0701		
	BR	9703	809		Α		1998	1103		BR	199	97-3	809		1997	0701		
	US	6117	931		Α		2000	0912		US	199	97-9	8054	5	1997	1201		
	US	6420	472		В	1	2002	0716		US	200	00-5	7047	9	2000	0512		
PRAI	US	1996	-673	936	Α		1996	0701										
	US	1996	-673	937	Α		1996	0701										
	US	1997	-980	545	Α	3	1997	1201										
													_		_		-	

AB A curable coating composition comprises (A) a carbamate-functional component that is the reaction product of (1) a compound having a plurality of OH groups that is the reaction product of (a) a compound comprising ≥1 epoxide group and (b) a compound comprising a plurality of organic acid groups, (2) a compound comprising a carbamate group, and (B) a component comprising a plurality of groups that are reactive with the carbamate functional groups on component (A). Thus, Glydexx N 10 was treated with dimethylolpropionic acid, esterified with Me carbamate, mixed with hexamethoxymethylmelamine, blocked dodecylbenzenesulfonic acid, and amyl acetate to prepare a coating material.

IT 199873-03-5DP, reaction products with Me carbamate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)

(low-volatile-organic-content curable coating compns. containing carbamate-functional compds. and melamine resins)

RN 199873-03-5 CAPLUS

CN Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropoxy]propyl ester (9CI) (CA INDEX NAME)

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ANSWER 10 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
     1997:772311 CAPLUS
DN
ΤI
     Low-volatile-organic-content curable coating compositions utilizing
     carbamate-functional compounds
IN
     Green, Marvin L.
     BASF Corp., USA
PΑ
SO
     U.S., 6 pp.
     CODEN: USXXAM
DT
     Patent
     English
LA
FAN.CNT 4
     LIS 5693722
                                                _______
                                               US 1996-673936 19960701
PΙ
     US 5693723 A 19971202
     EP 816456 A1 19980107
EP 816456 B1 20030820
                        A1 19980107
                                               EP 1997-110479 19970626
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
     IE, FI

AT 247699 E 20030915 AT 1997-110479 19970626
CN 1172834 A 19980211 CN 1997-114896 19970627
CA 2209436 AA 19980101 CA 1997-2209436 19970630
AU 9728395 A1 19980115 AU 1997-28395 19970630
AU 714522 B2 20000106

JP 10101992 A2 19980421 JP 1997-175972 19970701
BR 9703809 A 19981103 BR 1997-3809 19970701
US 6117931 A 20000912 US 1997-980545 19971201
US 6420472 B1 20020716 US 2000-570479 20000512
US 1996-673936 A 19960701
               IE, FI
PRAI US 1996-673936 A 19960701
     US 1996-673937 A 19960701
     US 1997-980545 A3 19971201
AB
     A curable coating composition comprises (A) a carbamate-functional component
     that is the reaction product of (1) a compound having ≥2 OH groups
     that is the reaction product of (a) a compound comprising ≥1 epoxide
     group and (b) a compound comprising ≥1 organic acid group and ≥1
     OH group, (2) a compound comprising a carbamate group, and (B) a component
     comprising a plurality of groups that are reactive with the carbamate
      functional groups on component (A). Thus, a coating material contained a
     reaction product of dimethylolpropionic acid with Glydexx N 10 and Me
     carbamate, hexamethoxymethylmelamine resin, a blocked
     dodecylbenzenesulfonic acid catalyst, and amyl acetate.
IT
     199873-03-5DP, reaction products with Me carbamate
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
      (Reactant or reagent)
         (low-volatile-organic-content curable coating compns. utilizing
         carbamate-functional compds. and melamine resin)
RN
     199873-03-5 CAPLUS
CN
     Neodecanoic acid, 2-hydroxy-3-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-
     oxopropoxy]propyl ester (9CI) (CA INDEX NAME)
```

L11 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN AN 1996:516514 CAPLUS

DN 125:144112

```
Epoxy-functional hydroxy esters useful as emulsifiers or reactive diluents
TT
    in epoxy resin compositions
    Elmore, Jimmy D.; Fried, Herbert Elliott; Stark, Charles John
IN
    Shell Internationale Research Maatschappij BV, Neth.
PA
    PCT Int. Appl., 20 pp.
SO
    CODEN: PIXXD2
DT
    Patent
LΑ
    English
FAN.CNT 1
    PATENT NO.
                   KIND DATE
                                       APPLICATION NO. DATE
    -----
                                        ______
   WO 9619468 A1 19960627 WO 1995-EP5159 19951220
        W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES,
            FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV,
            MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
            SK, TJ
        RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE,
            IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR,
            NE, SN, TD, TG
                    A 19960620
                                        ZA 1995-10782
    ZA 9510782
                                                        19951219
                    AA 19960621
                                       CA 1995-2207934 19951220
    CA 2207934
    AU 9644354
                    A1 19960710
                                        AU 1996-44354 19951220
    AU 694835
                    B2 19980730
    EP 799217
                    A1 19971008
                                        EP 1995-943227 19951220
    EP 799217
                    B1 20011024
       R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE
    BR 9510492 A 19980113 BR 1995-10492
                                                       19951220
                    Α
                         19980114
                                       CN 1995-196902 19951220
    CN 1170410
    DP 10511411 T2 19981104
                                       JP 1995-519532 19951220
    AT 207475
                    E 20011115
                                       AT 1995-943227 19951220
US 5623025 A 19970422
PRAI US 1994-361075 A 19941221
WO 1995-EP5159 W 19951220
                                       US 1996-643196 19960506
AΒ
    The epoxy-functional hydroxy ester compns. are produced by reacting (a)
    dimethylolpropionic acid and (b) an aliphatic or cycloaliph. glycidyl ether,
    an epoxy novolac or a cycloaliph. epoxy resin having a functionality of at
    least about 1.5 epoxide group per mol. These compns. are very suitable
    for use as emulsifiers and/or reactive diluents in e.g. aqueous epoxy resin
    compns. which are suitable for coating purposes. Dimethylolpropionic acid
    and Heloxy 67 were reacted to give a epoxy-functional hydroxy ester.
IT
    180268-44-4P
    RL: IMF (Industrial manufacture); TEM (Technical or engineered material
    use); PREP (Preparation); USES (Uses)
       (preparation of)
    180268-44-4 CAPLUS
RN
    Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-,
CN
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2-hydroxy-3-[4-(oxiranylmethoxy)butoxy]propyl ester (9CI) (CA INDEX NAME)

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L11 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 1996:363372 CAPLUS

DN 125:22347

TILithographic plate with improved printability

IN Horie, Seiji; Kondo, Shunichi

PA Fuji Photo Film Co Ltd, Japan

Jpn. Kokai Tokkyo Koho, 30 pp. SO CODEN: JKXXAF

Patent

DTLА Japanese

FAN.CNT 1

	PAT	TENT NO.	KIND	DATE	APPLICATION NO.	DATE
						
ΡI	JP	08082959	A2	19960326	JP 1994-217694	19940912
	US	5637428	Α	19970610	US 1995-526980	19950912
PRAI	PRAI JP 1994-217694			19940912		

In the title plate comprising a photosensitive layer(s) comprised of a photoconductive compound and/or a pos.-working photoresist composition on a conductive support with a hydrophilic surface, the pos.-working photoresist composition contains (1) a compound containing ≥2 enol ether groups, R2R1C:CR3-O- (R1-3 = H, alkyl, aryl), (2) a linear polymer containing acid group or OH group, and (3) a photoacid generator, where (2) and (3) are crosslinked by a heat during or after the photosensitive layer formation.

177712-28-6 IT

RL: DEV (Device component use); USES (Uses) (linear polymer component of pos.-working photoresist)

177712-28-6 CAPLUS RN

Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with CN1,6-diisocyanatohexane, 1,2-ethanediol, 2-hydroxyethyl 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoate and 1,1'-methylenebis[4isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 62782-16-5 CMF C7 H14 O5

CM 2

CRN 4767-03-7 CMF C5 H10 O4

$$\begin{array}{c} & \text{Me} \\ | \\ \text{HO-CH}_2 - \text{C-CO}_2 \text{H} \\ | \\ \text{CH}_2 - \text{OH} \end{array}$$

CM 3

CRN 822-06-0 CMF C8 H12 N2 O2 OCN-(CH₂)₆-NCO

CM 4

CRN 107-21-1 CMF C2 H6 O2

 $HO-CH_2-CH_2-OH$

CM 5

CRN 101-68-8 CMF C15 H10 N2 O2

L11 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:315625 CAPLUS

DN 122:326513

ΤI Positive-working light-sensitive composition.

Kondo, Syunichi; Umehara, Akira; Aotani, Yoshimasa; Yamaoka, Tsuguo IN

PΑ Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 65 pp.

CODEN: EPXXDW

DTPatent

English TιΔ

FAN.CNT 1

TAIL	I.CIVI I				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	EP 609684	A1	19940810	EP 1994-100530	19940114
	EP 609684	B1	20000405		
	R: DE, GB				
	JP 06230574	A2	19940819	JP 1993-18793	19930205
	US 5939235 .	Α	19990817	US 1997-968210	19971112
PRA	I JP 1993-18793		19930205		
	US 1994-176257		19940103		
	US 1995-545370		19951019		
OS	MARPAT 122.32651	3			

AB A pos.-working light-sensitive composition comprising (a) a compound having ≥2 enol ether groups, represented by the following general formula (R2)(R1)C:C(R3)-O- wherein R1, R2 and R3 may be the same or different and each represents a H atom, an alkyl group or an aryl group, provided that each 2 of R1, R2 and R3 may be linked together to form a saturated or olefinically unsatd. ring. (b) a linear polymer having acidic groups; and (c) a compound capable of generating an acid through irradiation with actinic light rays or radiant rays, the component (a) and the component (b) being thermally crosslinked. The pos.-working light-sensitive composition has high light-sensitivity and permits the use of light rays extending over a wide range of wavelengths. Therefore, the pos.-working light-sensitive composition can provide clear pos. images and has a wide development latitude.

IT 160508-74-7 160508-75-8

CN

RL: DEV (Device component use); USES (Uses) (crosslinked; pos.-working photoimaging composition)

RN 160508-74-7 CAPLUS

Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 1,6-diisocyanatohexane, 1,2-ethanediol, 2-hydroxyethyl 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoate, 1,1'-methylenebis[4-isocyanatobenzene] and 1,1'-(1-methylethylidene)bis[4-[2-(ethenyloxy)ethoxy]benzene] (9CI) (CA INDEX NAME)

CM 1

CRN 62782-16-5 CMF C7 H14 O5

CM 2

CRN 52411-04-8 CMF C23 H28 O4

$$\begin{array}{c} \text{Me} \\ \\ \text{H}_2\text{C} = \text{CH} - \text{O} - \text{CH}_2 - \text{CH}_2 - \text{O} \end{array} \\ \begin{array}{c} \text{Me} \\ \\ \text{O} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{CH} = \text{CH}_2 \end{array} \\ \end{array}$$

CM 3

CRN 4767-03-7 CMF C5 H10 O4

$$\begin{array}{c} & \text{Me} \\ | \\ \text{HO-} \, \text{CH}_2 - \text{C-} \, \text{CO}_2 \text{H} \\ | \\ \text{CH}_2 - \text{OH} \end{array}$$

CM 4

CRN 822-06-0 CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CRN 107-21-1 CMF C2 H6 O2

 ${\rm HO}^-{\rm CH}_2^-{\rm CH}_2^-{\rm OH}$

CM 6

CRN 101-68-8 CMF C15 H10 N2 O2

RN 160508-75-8 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 1,6-diisocyanatohexane, 2-hydroxyethyl 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoate, 1,1'-methylenebis[4-isocyanatobenzene] and 1,1'-(1-methylethylidene)bis[4-[2-(ethenyloxy)ethoxy]benzene] (9CI) (CA INDEX NAME)

CM 1

CRN 62782-16-5 CMF C7 H14 O5

CM 2

CRN 52411-04-8 CMF C23 H28 O4

$$\begin{array}{c} \text{Me} \\ \\ \text{H}_2\text{C} = \text{CH} - \text{O} - \text{CH}_2 - \text{CH}_2 - \text{O} \end{array} \\ \begin{array}{c} \text{Me} \\ \\ \text{O} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{CH} = \text{CH}_2 \end{array}$$

CM 3

CRN 4767-03-7 CMF C5 H10 O4

$$\begin{array}{c} \text{Me} & | \\ | \\ \text{HO-CH}_2 - \text{C-CO}_2 \text{H} \\ | \\ \text{CH}_2 - \text{OH} \end{array}$$

CM

CRN 822-06-0 CMF C8 H12 N2 O2

OCN-(CH₂)₆-NCO

CM 5

CRN 101-68-8 CMF C15 H10 N2 O2

L11 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN1994:496064 CAPLUS

DN 121:96064

Photosensitive composition for photosensitive printing plate ΤI

Sekya, Toshuki IN

PA

Fuji Photo Film Co Ltd, Japan Jpn. Kokai Tokkyo Koho, 30 pp. SO

CODEN: JKXXAF

DTPatent

LΑ Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
		-					
ΡI	JP 05165206	A2	19930702	JP 1991-333542	19911217		
PRAI	JP 1991-333542		19911217				
GI							

$$\begin{array}{c}
\text{CH}_2 + \text{CR}^2 \\
\text{Z} \\
\text{R}^2 + \text{R}^3 \\
\text{Y} \\
\text{R}^4 + \text{R}^5 \\
\text{N}_2^4 \text{X}^- \\
\text{I}
\end{array}$$

AB A photosensitive composition contains a diazonium copolymer having repeating units (I) and [CH2CR6(W)] (R1, R6 = H, Me; R2 - R5 = H, alkyl alkoxy, halo, OH; Y = NH, O, S; X- = anion; W = substituent containing an acidic H), polyurethane resin having a substituent containing an acidic H, or a modified polyvinyl acetal resin. A photosensitive composition contains a photodimerizable crosslinking polymer having unsatd. double bonds, a sensitizer, and the above diazonium copolymer. A photosensitive composition contains a polymerizable compound having an ethylenic unsatd. bonds, photopolymn. initiator, a polymer, and the above diazonium copolymer. These photosensitive compns. provide alkali-developable photosensitive printing plates with high sensitivity, excellent printing resistance, excellent developability in development with an alkali developer, and little diazo residue.

IT 152048-42-5P

RL: PREP (Preparation)

(preparation of, photosensitive composition containing, for alkali-developable

photosensitive printing plate)

RN 152048-42-5 CAPLUS

Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 2-oxo-2-[(phenylsulfonyl)amino]ethyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CN

CRN 152048-41-4 CMF C13 H17 N O7 S

CM 2

CRN 4098-71-9 CMF C12 H18 N2 O2

CRN 101-68-8

CMF C15 H10 N2 O2

L11 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:65943 CAPLUS

DN 120:65943

TI Photosensitive compositions useful for making presensitized lithographic plates

IN Sekya, Toshuki

PA Fuji Photo Film Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 33 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

LAM.	CNT I					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
		-				
PΙ	JP 05158231	A2	19930625	JP 1991-318257	19911203	
	JP 2652832	B2	19970910			
PRAI	JP 1991-318257		19911203			
CT						

AB The title compns. contain a polyurethane or modified poly(vinyl acetal) resin having acidic H-containing substituents and a diazo resin prepared in such

a manner that a compound having 2 oxirane rings in its mol. is ring opening-polymerized with an amino compound I (R1, R2 = H, alkyl, alkoxy, halo; R3 = substituent convertible to amino group; Z = none or divalent organic group) to give an oligomer, the substituents R3 of the oligomer are converted to amino groups, and the amino groups are then converted to diazonium salts. The presensitized lithog. plates using the compns. show

CN

good developability with aqueous alkali developing solution, photocrosslinking properties, and printing durability. Thus, a prepolymer from ethylene glycol diglycidyl ether and 4-aminoacetanilide was refluxed in the presence of HCl to convert the acetylamido groups to amino groups and reacted with NaNO2 and then with Na di-n-butylnaphthalenesulfonate to give a diazo resin, while 2,2-bis(hydroxymethyl)propionic acid, diethylene glycol, 1,4-butanediol, 4,4'-diphenylmethane diisocyanate, and hexamethylene diisocyanate were reacted to give a polyurethane. A composition containing the diazo resin, the polyurethane, and additives was coated on an Al substrate to give a presensitized lithog. plate.

IT 152048-42-5

RL: USES (Uses)

(presensitized lithog. plate using, diazo resin and)

RN 152048-42-5 CAPLUS

Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 2-oxo-2-[(phenylsulfonyl)amino]ethyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 152048-41-4 CMF C13 H17 N O7 S

CM 2

CRN 4098-71-9 CMF C12 H18 N2 O2

CM 3

CRN 101-68-8 CMF C15 H10 N2 O2

L11 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1989:156167 CAPLUS

DN 110:156167

TI Epoxy resin derivatives for stoving systems

AU Reader, C. E. L.

CS Shell Chem. Co. (Philippines) Inc., Makati, Philippines

SO Surface Coatings Australia (1988), 25(10), 6-9 CODEN: SCAUE6; ISSN: 0815-709X

DT Journal

LA English

AB Studies on model compds. derived from bisphenol A diglycidyl ether showed that removal of epoxy groups and introduction of primary hydroxyl functionality improved the stability and increased the reactivity of phenolic resin-crosslinked epoxy stoving systems. The same findings were valid for high-mol.-weight resins though the influence of such modifications on reactivity was somewhat less. Can lacquers based on modified epoxy resins containing primary hydroxyl groups had the addnl. advantage of improved film flexibility. Sterilization resistance was impaired if the primary hydroxyls were introduced by ester linkages but not if by ether linkages.

IT 120018-68-0P, Bisphenol A diglycidyl ether dimethylolpropionate-

Phenodur PR 217 copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coatings, preparation of, with good stability and reactivity)

RN 120018-68-0 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester, polymer with formaldehyde and phenol (9CI) (CA INDEX NAME)

CM 1

CRN 120018-67-9 CMF C31 H44 O12

PAGE 1-A

PAGE 1-B

CM 2

CRN 108-95-2

CMF C6 H6 O

CM 3

CRN 50-00-0 CMF C H2 O

 $H_2C = 0$

IT 120018-67-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as model for epoxy resin derivs. for stoving system)

RN 120018-67-9 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$-$$
 СН $_2$ — ОН $_3$ — Ме

L11 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1985:133678 CAPLUS

DN 102:133678

TI Self-crosslinking, thermosetting triturating resin

IN Geist, Michael; Ott, Guenther

PA BASF Farben und Fasern A.-G., Fed. Rep. Ger.

SO Ger. Offen., 24 pp.

CODEN: GWXXBX

DT Patent

LA German

F	Δ	M	CN	т	1

	PATENT	PATENT NO.		DATE	APPLICATION NO. DATE
PΙ	DE 3322	781	A1	19850103	DE 1983-3322781 19830624
	EP 1311	26	A 1	19850116	EP 1984-106021 19840526
	EP 1311	26	B1	19870819	
	R:	AT, BE,	CH, DE	, FR, GB,	IT, LI, NL, SE
	AT 2904	0	E	19870915	AT 1984-106021 19840526
	US 4539	385	Α	19850903	US 1984-620767 19840614
	ZA 8404	582	Α	19850227	ZA 1984-4582 19840618
	BR 8403	018	Α	19850528	BR 1984-3018 19840620
	ES 5336	66	A 1	19850301	ES 1984-533666 19840622
	JP 6004	7072	A2	19850314	JP 1984-129414 19840625
	US 4622	117	Α	19861111	US 1985-699149 19850207
PRAI	DE 1983	-3322781		19830624	
	EP 1984	-106021		19840526	
	US 1984	-620767		19840614	

AB Self-crosslinking, thermosetting binders, especially useful in electrophoretic coating compns., comprise synthetic resins containing primary and/or secondary OH groups, 0.8-2.0 quaternary ammonium groups/mol., carboxy groups esterified by an alc. containing activating substituents having a neg. inductive effect, and, optionally, amino groups. The binders exhibit good pigment wettability and are good triturating resins in the preparation of pigment pastes. Thus, [4-(H0)C6H4]2CMeCH2CH2CO2H and glycidyl 2-ethyl-2-methylheptanoate [83121-13-5] were used to prepare [4-(H0)C6H4]2CMeCH2CH2CO2CH2CH(OH)CH2O2CCEtMe(CH2)4Me (I). A mixture of a bisphenol A-based epoxy resin (1172 g, epoxide equivalent 188) and 1068 g I was heated 30 min at 165°, mixed at 110° with 1454 g BuOCH2CH2OH, treated at 80° with 460 g reaction product of MeN(CH2CH2OH)2 and 88% aqueous lactic acid (1-1.005 mol) to give acid number

1.0,

and mixed with 346 g BuOCH2CH2OH to prepare a triturating resin. This resin 1800, H2O 2447, TiO2 2460, aluminosilicate extender 590, Pb silicate 135, and carbon black 37 parts were milled to give Hegman fineness 5-7 and mixed with 1255 parts H2O to prepare a pigment paste. A mixture of bisphenol A-based epoxy resin (epoxide equivalent 188) 1360, (HOCH2)2CMe2 301, and xylene 83 g was treated at 123° with 11 g PhCH2NMe2, heated at 135° to give epoxide equivalent 1110, treated at 90° with a mixture of 121 g HN(CH2CH2OH)2 and 106 g diethylenetriamine bis(iso-Bu Me ketimine) (72% solution in iso-BuCOMe), heated 1 h at 115°, mixed with propylene glycol mono-Ph ether 162, Pb octoate 72, and a hardener 744 g, dispersed in a mixture of H2O 2410, AcOH 43, and emulsifier solution 48 g, mixed with 1539 g H2O, and heated to 50° under reduced pressure to sep. 250 g organic phase, giving a binder dispersion. The hardener was prepared by heating 4272 g 1:4 (molar) C(CH2OH)4-caprolactone reaction product with 5304 g trimellitic anhydride at 160° to give acid number 338, cooling the mixture to 146°, slowly adding 2000 g iso-BuCOMe, adding 124 g catalyst (Cr salt) at 109°, adding 3000 g iso-BuCOMe, and adding butylene oxide at 95° until the acid number was <2, giving a hardener (74.4% solids) having acid number 1.86. A coating bath was prepared from the pigment paste 775, the binder dispersion 1920, H2O 2280, and 10% AcOH 25 parts. Another coating bath was prepared similarly but with the use of (HOCH2)2CMeCO2CH2CH2OEt in place of I. Both baths were used to coat Zn phosphate-treated steel by cathodic deposition. After curing 20 min at 185°, the coatings had thickness 18-19 μ , impact resistance 40-50 in.-lb, Erichsen penetration 6.3-6.7 mm, and good adhesion to the substrate.

IT 95523-90-3D, reaction products with epoxy resins RL: USES (Uses)

(triturating resins, for pigments, in electrophoretic coating compns.)

RN 95523-90-3 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 2-ethoxyethyl ester

(9CI) (CA INDEX NAME)

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L11 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 1984:425057 CAPLUS

DN 101:25057

TI Self-crosslinking, thermosetting binder

IN Geist, Michael; Diefenbach, Horst

PA BASF Farben und Fasern A.-G., Fed. Rep. Ger.

SO Ger. Offen., 24 pp.

CODEN: GWXXBX

DT Patent

LA German FAN.CNT 1

L HIM.	CIA T	_													
	PATENT NO.				KIN	1D	DATE			AP:	PLICA	TION	NO.	DATE	
ΡI	DE	E 3233140 P 102496			A	L	1984	0308		DE	1982	-3233	3140	19820	907
	EP				A1	L	19840314		EP	EP 1983-107132			19830721	721	
	ΕP	10249	96		B3	L	1986	19861015							
		R:	ΑT,	BE,	CH,	DE,	, FR,	GB,	IT,	LI,	NL, S	E			
	AT	22913	3		E		1986	1115		AT	1983	-1073	132	19830	721
	za	83059	906		Α		1984	0425		z_{A}	1983	-5906	5	19830	811
	US	44776	542		Α		1984	1016		US	1983	-5260	071	19830	824
	BR	83048	357		Α		1984	0424		BR	1983	-485	7	19830	906
	JP	59074	166		A2	?	1984	0426		JP	1983	-1626	581	19830	906
	ES	52545	55		A1	_	1984	0516		ES	1983	-5254	155	19830	907
PRAI	DE	1982-	-3233	3140			1982	0907							
	ΕP	1983-	-1071	132			1983	0721							

AB The binders, useful in electrodip coating, contain resins bearing OH, carboalkoxymethyl ester, and neutralized amine groups. Thus, a bisphenol A epoxy resin (epoxy equivalent 188) 1410, carbomethoxymethyl 2,2-bis(hydroxymethyl)propionate [prepared from CH3C(CH2OH)2CO2H.Et3N and ClCH2CO2Me [96-34-4] in the presence of KI] 690, PhCH2NMe2 9, and xylene 38 parts were heated over 7 h from 95 to 110° until the epoxy equivalent reached 1280, mixed with 158 parts diethanolamine, heated to 115°, mixed with 142 parts C6H13OCH2CH2OH and 44 parts Pb octanoate, and dispersed in AcOH 27, emulsifier 37, and H2O 4072 parts. A mixture of this dispersion 1838, TiO2 paste 775, 10% AcOH 25, and H2O 2362 parts was coated electrophoretically on Zn-phosphated steel at 23° and baked 20 min at 185° to give an 18.3-μ film with Erichsen indentation 7.2 mm and iso-BuCOMe resistance ≥20 double rubs.

IT 90745-82-7D, reaction products with aminated epoxy resins
RL: USES (Uses)

(binders, self-curing, for electrophoretic coatings)

RN 90745-82-7 CAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 2-methoxy-2-oxoethyl ester (9CI) (CA INDEX NAME)

CMF C9 H16 O6

```
L11
    ANSWER 19 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
AN
    1984:53313 CAPLUS
DN
    100:53313
    Self-curing, thermosetting binder
TI
    Geist, Michael; Diefenbach, Horst
IN
    BASF Farben und Fasern A.-G., Fed. Rep. Ger.
PA
    Ger. Offen., 28 pp.
SO
    CODEN: GWXXBX
    Patent
DT
    German
LA
FAN.CNT 1
    PATENT NO.
                   KIND DATE
                                        APPLICATION NO.
                                                         DATE
     ------
                                        -----
                   A1 19831103
    DE 3215891
                                        DE 1982-3215891 19820429
PΤ
                                        AU 1983-11704
    AU 8311704
                    A1 19831103
                                                         19830221
                    B2
    AU 567087
                          19871112
                    A1
    EP 93241
                          19831109
                                         EP 1983-101645
                                                         19830221
                    B1
                          19861210
    EP 93241
        R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE
    ZA 8301147 A 19831130 ZA 1983-1147
                                                         19830221
                    E
                          19861215
                                         AT 1983-101645
    AT 24195
                                                         19830221
    US 4495335
                    Α
                          19850122
                                        US 1983-472639
                                                         19830307
                    A1 19851224
                                        CA 1983-425920
    CA 1198545
                                                         19830414
    BR 8301937
                    Α
                          19831220
                                        BR 1983-1937
                                                         19830415
                    A2 19831115
                                        JP 1983-71571
    JP 58196271
                                                         19830425
                    A1 19840201
                                        ES 1983-521988
    ES 521988
                                                         19830429
                    Α
                          19851015
                                         US 1984-657062
                                                         19841002
    US 4547409
PRAI DE 1982-3215891
                          19820429
    EP 1983-101645
                          19830221
    US 1983-472639
                          19830307
    The title binder, useful in electrodip coatings, consists of resins
AΒ
    bearing amine groups and ester groups activated by electroneg.
     substituents on the alkyl groups. Thus, heating 4,4-bis(4-
    hydroxyphenyl)pentanoic acid [126-00-1] 3810, glycidyl
     2-ethyl-2-methylheptanoate [83121-13-5] 3855, and cyclohexanone 1897 g
    with a Cr catalyst at 90° gave an 80% solution of glycerol
     1-[4,4-bis(4-hydroxyphenyl)pentanoate] 3-(2-ethyl-2-methylheptanoate) (I).
    Heating I 1696, epoxy resin (epoxy equivalent 188) 1654, and PhCH2NMe2 20 g at
     165° until the epoxy equivalent reached 1520, adding 176.2 g
     diethylenetriamine bis(iso-Bu Me ketimine) and 262 g N-methyl-1,3-
    propanediamine Me iso-Bu ketimine at 105°, heating 1.5 h, adding
     190 q 2,2,4-trimethyl-1,3-pentanediol monoisobutyrate, heating 20 min, and
     dispersing the product in H2O 7036, AcOH 66, and antifoam agent 38.5 g
     gave a 20% dispersion, pH 6.3. Coating this solution on phosphated sheet
    metal at 330 V for 2 min and baking 20 min at 180° gave a
    solvent-resistant, 21-\mu film.
IT
     88581-92-4D, reaction products with diethylenetriamine
    RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, electrophoretic)
     88581-92-4 CAPLUS
RN
     Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 2-ethoxy-2-oxoethyl
CN
     ester, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA
     INDEX NAME)
     CM
         1
     CRN 88581-91-3
```

CRN 101-68-8 CMF C15 H10 N2 O2

L11 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

1977:192354 CAPLUS AN

DN 86:192354

Rust inhibitors and lubricant compositions containing same ΤI

IN Weetman, David G.; Wisner, Jackson W., Jr.; Stehouwer, David M.

PΑ Texaco Inc., USA

SO U.S., 4 pp.

CODEN: USXXAM

DTPatent

English LA

FAN.CNT 1				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
		-		
PI US 3996144	Α	19761207	US 1975-625296	19751023
DE 2646538	A1	19770428	DE 1976-2646538	19761015
BR 7607008	A	19770906	BR 1976-7008	19761020
JP 52051408	A2	19770425	JP 1976-125550	19761021
CA 1075674	A1	19800415	CA 1976-265140	19761108
PRAI US 1975-625296		19751023		
GI				

$$(CH_2)_nOH$$
RCHOHCHR $^{1}O_2CC(CH_2)_rH$
 $(CH_2)_mOH$

AB An ashless rust inhibited lubricating oil is given in which from 0.01-5% of a polyhydric ester (I) is added to a mineral oil base of lubricating viscosity. In I R and R1 are H or C1-10 hycarbyl groups and n, m and r are integers of 1-10. I is prepared by the reaction of a C11-18 α -olefin epoxide with a polyhydric acid, such as a dialkylol propionic acid. Formulated lubricants containing a fully balanced additive package are evaluated in the bench II C engine rust test. The lubricant in which I, where R = C6H11, R1 = H, and n, m, and r = 1, is the ashless rust inhibitor scored 8.7. Oils containing mono (β -hydroxylether) alkane thiophosphates as antirust agents scored 7.3-7.6. IT

62782-16-5DP, alkyl derivs. 62782-17-6P

RL: PREP (Preparation)

(preparation of, and lubricating oil corrosion inhibitors from)
RN 62782-16-5 CAPLUS
CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, 2-hydroxyethyl
ester (9CI) (CA INDEX NAME)

$$^{\mathrm{Me}}_{\mid \mid \mid}$$
 о $\mid \mid \mid$ но- $\mathrm{CH}_2-\mathrm{C}-\mathrm{C}-\mathrm{O}-\mathrm{CH}_2-\mathrm{CH}_2-\mathrm{OH}$ $\mid \mathrm{CH}_2-\mathrm{OH}$

RN 62782-17-6 CAPLUS
CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-,
1-(hydroxymethyl)heptyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{O Me} \\ | & | \\ \text{O-C-C-CH}_2\text{-OH} \\ | & | \\ \text{CH}_2\text{-OH} \\ | & | \\ \text{HO-CH}_2\text{-CH-(CH}_2)_5\text{-Me} \end{array}$$

=> d his

(FILE 'HOME' ENTERED AT 08:53:42 ON 23 MAY 2004)

FILE 'REGISTRY' ENTERED AT 08:55:49 ON 23 MAY 2004

L1 STRUCTURE UPLOADED

L2 50 S L1 FULL

FILE 'CAPLUS' ENTERED AT 08:56:19 ON 23 MAY 2004

L3 28 S L2

L4 4 S L3 AND DENDRIM?

L5 5 S L3 AND POLYETHYLENE

L6 4 S L5 NOT L4

L7 4 DUP REM L6 (0 DUPLICATES REMOVED)

L8 24 S L3 NOT L4

L9 4 S L7

L10 20 S L8 NOT L7

L11 20 DUP REM L10 (0 DUPLICATES REMOVED)

=> s 13 and therap?

370195 THERAP?

L12 0 L3 AND THERAP?

=> s 13 and drug?

670580 DRUG?

L13 0 L3 AND DRUG?

=>

```
=> s boltorn
          102 BOLTORN
=> s 15 and dendrimer
         5330 DENDRIMER
           19 L5 AND DENDRIMER
L6
=> dup rem 16
PROCESSING COMPLETED FOR L6
             19 DUP REM L6 (0 DUPLICATES REMOVED)
=> d 17 bib abs 1-19
     ANSWER 1 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
L7
     2003:42317 CAPLUS
AN
DN
     138:90732
ΤI
     Modified polyesters produced by solid-phase post-condensation with
     hyperbranched polymers
     Borer, Camille; Christel, Andreas; Manson, Jan-Anders; Leterrier, Yves
IN
     Buehler A.-G., Switz.
PA
     PCT Int. Appl., 20 pp.
SO
     CODEN: PIXXD2
     Patent
DT
     German
LA
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                          APPLICATION NO. DATE
     ______
                                          -----
                           20030116
PΙ
     WO 2003004546
                     A1
                                         WO 2002-CH177 20020326
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                        DE 2001-10132928 20010703
     DE 10132928
                      A1
                           20030116
     EP 1401911
                           20040331
                                          EP 2002-704541 20020326
                      Α1
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI DE 2001-10132928 A
                           20010703
     WO 2002-CH177
                      W
                           20020326
     A modified polyester having improved rheol. and mech. properties is
AB
     produced by (a) mixing and melting the polyester with a hyperbranched
     polymer (HBP), (b) cooling the melted mixture to obtain a solid, and (c)
     subjecting the solid mixture to solid-phase post-condensation. The
     polyester can be poly(ethylene terephthalate), recycled poly(ethylene
     terephthalate) or other polyester. A composition for producing the modified
     polyesters comprises HBP and one or more additives, such as impact
     modifiers, nucleating agents, catalysts, dyes and pigments, stabilizing
     agents, plasticizers, compatibilizers, reinforcing fibers and fillers.
     The modified polyesters can be further processed into products such as
     films, foams, fibers and packaging materials. Thus, 1,4-
     cyclohexanedimethanol-1,2-ethanediol-terephthalic acid copolymer was
     modified by extrusion with a hyperbranched polymer Boltorn H 20
     which is a second-generation dendrimer having 16 primary hydroxy
     groups.
RE.CNT 10
             THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

```
L7
     ANSWER 2 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
AN
     2003:36516 CAPLUS
DN
     138:74411
TI
     Epoxy resin composition for fiber-reinforced composite material, prepreg
     and fiber-reinforced composite material
     Tomioka, Nobuyuki; Noda, Shunsaku; Kishi, Hajime
IN
PA
    Toray Industries, Inc., Japan
     Jpn. Kokai Tokkyo Koho, 12 pp.
SO
     CODEN: JKXXAF
DT
     Patent
     Japanese
LA
FAN.CNT 1
    PATENT NO.
                   KIND DATE
                                         APPLICATION NO. DATE
     -----
                                          -----
                    A2 20030115
PΙ
     JP 2003012837
                                         JP 2001-194295 20010627
PRAI JP 2001-194295
                           20010627
    The composition comprises (a) epoxy resins with epoxy equivalent 200-400, (b)
     hardeners, and (c) 1-15 parts, based on (a), liquid multifunctional compds.
     having \geq 1 atom branched with \geq 3 mol. chains and \geq 4
     functional groups reactive with epoxy resins. A composition comprised EP 828
     30, EP 1001 60, EP 807 10, dicyandiamide 5, 3-(3,4-dichlorophenyl)-1,1-
     dimethylurea 4, and polyvinyl formal (Vinylec H) 3 parts, giving test
     pieces with glass temperature 102°, elongation 12%, and flexural modulus
     3.2 GPa. A preprepg including 76% carbon fibers (Torayca T800H12K-40B)
     was prepared using this composition and subsequently giving a composite with
good
     torsional strength.
L7
    ANSWER 3 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
AN
     2003:659741 CAPLUS
DN
    140:304399
ΤI
     PET surface modification using hydrophilic dendritic polymers
     Bolt, Benjamin W.; Iyer, Swaminathan K.; Luzinov, Igor; Hirt, Douglas E.
ΑU
CS
     Department of Chemical Engineering, School of Materials Science and
     Engineering, and Center for Advanced Engineering Fibers and Films, Clemson
     University, Clemson, SC, 29634-0909, USA
SO
     Annual Technical Conference - Society of Plastics Engineers (2003),
     61st(Vol. 3), 2767-2771
     CODEN: ACPED4; ISSN: 0272-5223
PB
    Society of Plastics Engineers
DT
     Journal
LA
     English
AΒ
     PET is commonly used in biomedical applications because of its desirable
     bulk properties. However, the surface of virgin PET is prone to protein
     adhesion and hemocompatibility problems. The goal is to create PET with
     better wettability by grafting hydrophilic dendritic polymers to the
     surface. The grafting procedure includes plasma treatment of the PET
     surface, grafting of an intermediate epoxide-functionalized polymer, and
     final grafting of the dendritic mols. Dendritic mols. with both hydroxyl
     and amine functionality were studied. Si wafers were also used as model
     substrates to study the sequence of surface-chemical steps. Successful
     surface grafting was achieved on the Si wafers with static H2O contact
     angles ≥36° for the amine-terminated dendrimer.
     Preliminary expts. showed that the surface-modified PET films exhibited
     higher contact angles due to partial dewetting of the intermediate epoxy
     layer leading to incomplete surface coverage.
RE.CNT 8
             THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

L7 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN AN 2002:555399 CAPLUS

```
137:110587
DN
     Dendrimer-based dispersing agent
ΤI
     Loen, Elizabeth Maaike; Pirrung, Frank Olivier Heinrich
IN
     Efka Additives B.V., Neth.
PA
     PCT Int. Appl., 16 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                             APPLICATION NO. DATE
     PATENT NO.
                       KIND DATE
                                             -----
                                           WO 2002-NL41 20020118
                      A1 20020725
PΙ
     WO 2002057004
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
              TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
              CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
              BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                        A1 20031015
     EP 1351759
                                           EP 2002-710552 20020118
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                         BR 2002-6468
                        A
                            20040225
     BR 2002006468
                                                                20020118
     US 2004063828
                        A1
                              20040401
                                             US 2003-250964
                                                                20030710
PRAI EP 2001-200210
                        Α
                              20010119
                              20020118
     WO 2002-NL41
                        W
     The invention relates to a dispersing agent or salt thereof, comprising at
AB
     least one dendrimer, the dendrimer comprising
     functional groups, that have reacted with a functional moiety, the moiety
     being defined as R-X, X being a pigment affinic group, and R being a
     linking moiety chain having at least 2 atoms in the chain, with the
     proviso that the functional group and the pigment affinic group are
     different.
RE.CNT 7
               THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
L7
     ANSWER 5 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
AN
     2002:800368 CAPLUS
     138:238521
DN
TΙ
     Templating porosity in polymethylsilsesquioxane coatings using
     trimethylsilylated hyperbranched polymers
ΑU
     Plummer, C. J. G.; Garamszegi, L.; Nguyen, T.-Q.; Rodlert, M.; Manson,
     J.-A. E.
CS
     Lab. Technol. Composites Polymeres, Ec. Polytech. Fed. Lausanne, CH-1015,
     Switz.
SO
     Journal of Materials Science (2002), 37(22), 4819-4829
     CODEN: JMTSAS; ISSN: 0022-2461
     Kluwer Academic Publishers
PB
     Journal
DT
LA
     English
AB
     A series of trimethylsilyl end-functionalized aliphatic hyperbranched
     polymers has been used to template porosity in polymethylsilsesquioxane
     films prepared by heat treatment of a spin cast methylsilsesquioxane
     precursor. By varying the extent of the end-functionalization, closed
     pore foams with controlled pore sizes and pore contents of up to 40 vol%
     were obtained by chemical-induced phase separation and thermal degradation of
the
     hyperbranched polymers during the heat treatment.
              THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 33
```

ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L7 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2002:264471 CAPLUS
- DN 137:126469
- TI Synthesis and characterisation of star branched polyesters with dendritic cores and the effect of structural variations on zero shear rate viscosity
- AU Claesson, H.; Malmstrom, E.; Johansson, M.; Hult, A.
- CS Department of Polymer Technology, Royal Institute of Technology, Stockholm, SE-100 44, Swed.
- SO Polymer (2002), 43(12), 3511-3518 CODEN: POLMAG; ISSN: 0032-3861
- PB Elsevier Science Ltd.
- DT Journal
- LA English
- A series of branched polyesters consisting of poly(ε -caprolactone) AΒ (PCL) (degree of polymerization 5-200) initiated from hydroxy-functional cores and end-capped with Me methacrylate were prepared The cores were third-generation hyperbranched polyester, Boltorn H 30, with approx. 32 hydroxyl groups, a third-generation dendrimer with 24 hydroxyl groups and a third-generation dendron with eight hydroxyl groups. Finally, a linear PCL was synthesized as a reference material. All initiators were based on 2,2-bis(methylol)propionic acid (bis-MPA). 13C NMR spectra of the polymers showed that those with shorter arms contained unreacted hydroxyl groups on the core. Rheol. measurements of zero shear rate viscosity, $\eta 0$, showed that the branched polyesters had a considerably lower no than linear polyesters with a similar mol. weight The low melt viscosity and the crystallinity produced a rheol. behavior suitable for the film formation process for powder coatings. Measurements of the mech. properties of cured films showed that those with low arm mol. weight, Ma, were amorphous while those of high Ma were crystalline
- RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L7 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2002:331482 CAPLUS
- DN 137:370405
- TI Hyperbranched polyester with mixed methacryloyl and aliphatic ester terminal groups: synthesis, characterization, and application in dental restorative formulations
- AU Gao, Feng; Schricker, Scott R.; Tong, Yuhua; Culbertson, Bill M.
- CS College of Dentistry, The Ohio State University, Columbus, OH, 43218-2357,
- SO Journal of Macromolecular Science, Pure and Applied Chemistry (2002), A39(4), 267-286
 CODEN: JSPCE6; ISSN: 1060-1325
- PB Marcel Dekker, Inc.
- DT Journal
- LA English
- AB Boltorn H30 is a polyester polyol with a dendritic structure, developed by Perstop Corp. Complete methacrylated H30 oligomers were obtained by using three different reaction routes, i.e., treatment of H30 with methacrylic anhydride, methacryloyl chloride and 2-isocyanatoethyl methacrylate (IEM). The viscosities of the three H30 hyperbranched materials at 45°C were 22.4, 23.5, and 42.8 P, resp., compared to commonly used BisGMA having a viscosity of 33.5 P at 45°C. All three completely methacrylated H30 materials were combined with TEGDMA (50/50, weight/weight) to formulate visible light-curable (VLC) neat resins. The exptl. VLC resins exhibited significant reduction of polymerization

higher C=C double bond conversion, compared to the VLC BisGMA/TEGDMA (50/50, weight/weight) control. The three new resins, with the exception of

H30-IEM based formulation, have mech. properties comparable to a BisGMA/TEGDMA control. But, the VLC H30-IEM based resin exhibited higher compressive and flexural strengths than the BisGMA/TEGDMA control, possibly due to hydrogen bonding. H30 was also esterified by using different acid chlorides to investigate the effect of other ester terminal groups on H30, in relation to the viscosities of the oligomers. The results show that the viscosities of the esterified H30 are strongly depended on the ester groups, where benzoate > acetate > propionate > isobutyrate ester > butyrate ester. However, the Tg of the cured resins depends more on the level of hydrogen bonding, rather than the terminal ester groups. A H30 oligomer, with half of the terminal hydroxyl groups replaced by methacrylate residues and half by different carboxylates, such as acetate, propionate, butyrate and isobutyrate ester, were prepared and used to formulate VLC resins. All these formulated resins, with partly methacrylated H30, have much higher double bond conversion and less linear polymerization shrinkage. But, they exhibited lower Tg values and less attractive mech. properties. The latter was especially true in comparing acetate to butyrate ester terminal groups. A third series of partly methacrylated H30 were prepared, where methacrylation was achieved by combining acetyl chloride/methacryloyl chloride in the 70/30, 50/50 and 30/70 (weight/weight) ratios, resp., were prepared and used to formulate VLC resins. The results showed that higher methacrylation of the terminal hydroxyls on H30 failed to bring about better mech. properties for the cured resins, when the replacement portion was >50%.

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L7 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2003:86413 CAPLUS
- DN 139:134948
- TI Design of coating resins by changing the macromolecular architecture. Solid and liquid coating systems
- AU Johansson, M.
- CS Department of Polymer Technology, Royal Institute of Technology, Stockholm, SE-100 44, Swed.
- SO Athens Conference on Coatings Science and Technology, Proceedings, 28th, Athens, Greece, July 1-5, 2002 (2002), 129-138 Publisher: Institute of Materials Science, New Paltz, N. Y. CODEN: 69DNXC
- DT Conference
- LA English
- AB An increased demand for new and improved coating systems, both due to environmental as well as performance reasons, have appeared during the last decades. Techniques such low temperature curing powder coatings, radiation

curable systems, and high solids have gained an increased interest and obtained significant market shares. Although improved in many aspects, these systems still have limited use in certain applications due to tech. reasons. One way to change the properties of thermoset resins that has obtained significant interest during the last decade is by changing the mol. architecture of the resin. An example of polymers which exhibit different properties compared to conventional linear structures are highly branched, dendritic, polymers1,2,3. These polymers for example exhibit a higher solubility and lower melt viscosity compared to their linear counterparts. They can also be tailored with respect to functionality and polarity to adjust the properties for certain applications. Coating resins based on hyperbranched polymers have been described both for liquid UV-curable systems as well as powder coatings4,5,6. This presentation will focus on how properties of resins based on dendritic polymers can be tailored and how this can applied to coating systems such as powder coatings, radiation curable resins and no-solvent liquid systems. The correlation between resin structure and its properties both before and

after cure will be discussed. THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 25 ALL CITATIONS AVAILABLE IN THE RE FORMAT L7 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN 2002:597368 CAPLUS ΑN DN 138:155064 TТ Hyperbranched polyesters basis for low temperature powder coatings ΑU Johansson, M.; Malmstrom, E.; Hult, A.; Claesson, H. CS SO European Coatings Journal (2002), (7-8), 26-28, 31-33 CODEN: ECJOEF; ISSN: 0930-3847 PB Vincentz Verlag DТ Journal LA English AΒ A dendritic polymer is used as scaffolds for solid thermoset resins i.e. powder coatings. To make it crosslinkable there is a concept of attaching crystalline segments to a dendritic polymer and subsequent functionalization. The rheol. performance of these structures makes it possible to reduce the film formation temperature to 80°C thus enabling heat sensitive substrates such as wood and polymers to be coated. The effects of structural variations on the rheol. and mech. properties are shown. main factors affecting the final properties is the length of the crystalline grafts while the core structure induces only smaller differences in properties. The obtained resins are UV-curable with little or very low levels residual unsatn. present in the cured films. THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 25 ALL CITATIONS AVAILABLE IN THE RE FORMAT L7 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN AN 2001:781016 CAPLUS DN 135:332092 TIHigh flow polyphenylene ether formulations with dendritic polymers IN Adedeji, Adeyinka PA General Electric Company, USA SO PCT Int. Appl., 33 pp. CODEN: PIXXD2 DTPatent LΑ English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ----------PIWO 2001079352 A1 20011025 WO 2001-US4537 20010212 W: CN, JP, SG RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR US 6414084 20020702 US 2000-548855 B1 20000413 20010212 EP 1276814 A1 20030122 EP 2001-910586 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR JP 2001-577340 JP 2003531235 T2 20031021 20010212 US 2002151652 A1 20021017 US 2002-63365 20020416 PRAI US 2000-548855 Α 20000413 WO 2001-US4537 W 20010212 A polyphenylene ether composition comprises (a) a polyphenylene ether resin AB having an intrinsic viscosity ≥0.2 dL/g at 25°, (b) a dendritic polymer having a melt viscosity 1-250 Pa at 110° and shear rate 30/s, Mw 1000-5000, which is of a star-burst configuration and comprises polystyrene branching units bound to a core, (c) an alkenyl aromatic resin comprising polystyrene homopolymers, copolymers of styrene, a

rubber modified polystyrene, and impact polystyrene, and (d) a impact modifier, an flame retardant, and other additives. The polyphenylene

ether composition exhibits high melt flow with improved flame retardance as well as improved heat deflection temperature (HDT) values, and impact resistance.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L7 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 2001:747890 CAPLUS

DN 135:304623

TI Use of dendrimers as a processing aid and surface modifier for thermoplastic resins

IN Mhetar, Vijay R.

PA General Electric Company, USA

SO PCT Int. Appl., 24 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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APPLICATION NO. DATE
    PATENT NO. KIND DATE
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                                     _____
PΙ
    WO 2001074946
                  A1 20011011
                                    WO 2001-US40014 20010201
       W: CN, JP, SG
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
           PT, SE, TR
    US 6497959
                 B1
                        20021224
                                     US 2000-539272
                                                     20000330
                                     EP 2001-920944
    EP 1274799
                        20030115
                   A1
                                                     20010201
       R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
           IE, FI, CY, TR
    JP 2003529658 T2 20031007
                                    JP 2001-572627
                                                     20010201
    US 2003082384
                  A1 20030501
                                     US 2002-196642
                                                    20020715
    US 6663966
                   B2 20031216
PRAI US 2000-539272 A
WO 2001-US40014 W
                        20000330
    WO 2001-US40014
                   W
                        20010201
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AB Dendrimer additives incorporated in thermoplastic resins (such as polycarbonate resins) are effective to alter the surface characteristics of the thermoplastic resin. Such compns. can be injection molded to produce articles in which the dendrimer additive is concentrated at the surface of the article to alter the properties of the resin.

By selection of the type of **dendrimer** additive, the resulting characteristics of the molded article may be controlled.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L7 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2001:206602 CAPLUS
- DN 135:20239
- TI Study on UV curable powder coatings based on hyperbranched polymers
- AU Zhu, Sheng-Wu; Kou, Hui-Guang; Wei, Huan-Yu; Lin, De; Shi, Wen-Fang
- CS State Key Laboratory of Fire Science and Department of Applied Chemistry, University of Science and Technology of China, Hefei, 230026, Peop. Rep. China
- SO Chinese Journal of Polymer Science (2001), 19(2), 155-160 CODEN: CJPSEG; ISSN: 0256-7679
- PB Springer-Verlag
- DT Journal
- LA English
- AB By introducing semicryst. moieties into hyperbranched mol. structures three kinds of prepolymers of potential use as UV powder coatings were prepared and characterized. The crystallinity of hyperbranched prepolymers based on different monomers and core mols. modified with octadecyl isocyanate and acryloyl chloride was investigated.

- RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L7 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2003:381110 CAPLUS
- DN 138:338830
- TI Surface properties of dendritic polymers
- AU Mackay, Michael E.; Carmezini, G.; Sauer, Bryan B.; Kampert, W. G.; Malmstroem, Eva; England, Johan
- CS Dept. Chem., Biochem. & Materials Eng., Stevens Inst. Tech., Hoboken, NJ, USA
- SO Polymeric Materials Science and Engineering (2001), 84, 86-87 CODEN: PMSEDG; ISSN: 0743-0515
- PB American Chemical Society
- DT Journal
- LA English
- AB Poly(benzyl ether) dendrimers and their derivs. by reaction with pentafluorobenzoyl chloride were studied for viscosity, melt surface tension, and advancing and receding contact angles in various liqs. Results showed large decreases in surface tension for long chain alkane and pentafluorobenzoate end group modified HBPs, consistent with contact angles (verified the lower surface energy). The melt surface tension of the hydroxy terminated HBPs is perhaps the largest measured for a polymer because of bulk property modification by the very large number of hydroxy end groups, possibly combined with mol. architecture contributions in constraining end groups near the surface.
- RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L7 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2001:584998 CAPLUS
- DN 135:304461
- TI Hyperbranched polymers grafted to functionalized silicon surface
- AU Sidorenko, A.; Zhai, X. W.; Peleshanko, S.; Greco, A.; Tsukruk, V. V.
- CS Department of Material Science & Engineering, Iowa State University, Ames, IA, 50011, USA
- SO Polymeric Materials Science and Engineering (2001), 85, 4 CODEN: PMSEDG; ISSN: 0743-0515
- PB American Chemical Society
- DT Journal
- LA English
- AB We studied the chemical grafting behavior of hydroxy-terminated hyperbranched polyesters of second G2 and fourth G4 generations and HBP with epoxy terminal groups EHB on SAM functionalized silicon surface. The thickness of grafted HBPs on this SAM from melt was obtained to be 1.03nm for G2 and 1.74nm for G4. For EHB, grafted on the bare silicon, thickness was 3.6 nm. The AFM measurements showed that the grafted layers are very homogeneous and their thickness correlate with the mol. weight
- RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L7 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2000:441675 CAPLUS
- DN 133:75475
- TI Dispersants for hydrophobic particles in water-based systems and their application in pigmented inks
- IN Rao, Prabhakara S.; Abuelyaman, Ahmed S.; Gaddam, Babu N.
- PA Minnesota Mining and Manufacturing Company, USA
- SO PCT Int. Appl., 30 pp.
 - CODEN: PIXXD2
- DT Patent
- LA English

ΑN

DN

2000:188717 CAPLUS

132:334927

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FAN.CNT 1
    PATENT NO.
                   KIND DATE
                                       APPLICATION NO. DATE
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                                   WO 1999-US6952 19990330
PΙ
    WO 2000037167
                    A1 20000629
        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
            DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
            JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
            MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
            TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
            RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
            ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
            CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                       US 1998-216161
    US 6262207
                     B1 20010717
                                                         19981218
    AU 9931201
                     A1
                          20000712
                                       AU 1999-31201
                                                         19990330
                                        EP 1999-912950
    EP 1140344
                          20011010
                                                         19990330
                     Α1
    EP 1140344
                          20031015
                     B1
        R: DE, FR, GB, IT
                                         JP 2000-589272
    JP 2002532242 T2
                          20021002
                                                         19990330
PRAI US 1998-216161
                          19981218
                     Α
    WO 1999-US6952
                          19990330
                     W
    Dispersants that strongly adsorb to hydrophobic surfaces of particles in
AΒ
    aqueous media comprise a ABn-type polymer (n>1), where A is hydrophilic or
    amphiphilic polymer chain containing ionizable moieties and terminated with a
    multifunctional chain-transfer agent and B is a nonpolar nonpolymd.
    hydrophobic hydrocarbon segment and forms a forked segment at the
    chain-transfer agent-terminated end of A segment. Suspensions and inks
    comprising the dispersants are also described.
RE.CNT 1
             THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
L7
    ANSWER 16 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
    2000:531671 CAPLUS
AN
    133:152037
DN
TI
    Pigment compositions containing dendrimers
    Vincent, Mark John; Chisholm, Greig
IN
    Ciba Specialty Chemicals Corporation, USA
PA
SO
    U.S., 12 pp.
    CODEN: USXXAM
DT
    Patent
LA
    English
FAN.CNT 2
    PATENT NO. KIND DATE
                                        APPLICATION NO. DATE
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                                        _____
PΙ
    US 6096801
                    A 20000801
                                        US 1998-81428
                                                         19980519
                    A1 19981209
                                        EP 1998-304165
    EP 882772
                                                         19980527
                    B1 20030625
    EP 882772
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
PRAI GB 1997-11625
                          19970606
                     Α
    US 1998-81428
                     Α
                          19980519
    The title compns. comprise a pigment selected from the group consisting of
AB
    an azo, azo metal salt or complex, azomethine, azomethine salt or complex,
    phthalocyanine, anthraquinone, isoindoline, perinone, quinacridone and
    dipyrrolopyrrole pigment and mixts. thereof and from 0.1 to 10% by weight,
    based on the weight of pigment, of at least one dendrimer.
             THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 11
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
Ь7
    ANSWER 17 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
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- TI Structure Buildup in Hyperbranched Polymers from 2,2-Bis(hydroxymethyl)propionic Acid
- AU Magnusson, Helene; Malmstroem, Eva; Hult, Anders
- CS Department of Polymer Technology, Royal Institute of Technology, Stockholm, SE-100 44, Swed.
- SO Macromolecules (2000), 33(8), 3099-3104 CODEN: MAMOBX; ISSN: 0024-9297
- PB American Chemical Society
- DT Journal
- LA English
- AB The structure buildup in hyperbranched polyesters from 2,2-bis(hydroxymethyl)propionic acid (bis-MPA) was studied exptl. Bis-MPA and its dendritic trimer were both polymerized in bulk using acid catalyst. The fractions of terminal, dendritic, and linear repeating units were monitored by 13C NMR during the course of reaction. Effect of slow monomer addition on the degree of branching in the final product was also studied. Hyperbranched polymers from bis-MPA with and without a core mol. were kept at the polymerization temperature in order to examine the effect of

heat

treatment on composition in the polymer. The fractions of the different repeating units were changing to a large extent with conversion. Slow monomer addition to a trifunctional core mol. gave a product with a degree of branching of 47%. Heat treatment of hyperbranched materials gave small changes in the fractions of the different repeating units in both materials and, eventually, gelling in the material without a core.

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L7 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2000:208058 CAPLUS
- DN 132:335005
- TI Studies on syntheses and characterization of hyperbranched multi-methacrylates and their potential applications
- AU Wan, Qichun; Schricker, Scott R.; Culbertson, Bill M.
- CS College of Dentistry, The Ohio State University, Columbus, OH, 43210-1241, USA
- SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2000), 41(1), 101-102 CODEN: ACPPAY; ISSN: 0032-3934
- PB American Chemical Society, Division of Polymer Chemistry
- DT Journal
- LA English
- AB Three multi-functional hyperbranched polymers, based on **Boltorn** dendritic polyols, were synthesized by reaction of polyols H20, H30, and H40 with methacrylic acid anhydride or chloride. Their structures were confirmed by FT-IR, 1H and 13C NMR and their mol. wts. were estimated by gel permeation chromatog. These multi-methacrylates (H-MMA) mixed well with a variety of monomers such as acrylic acid (AA), methacrylic acid (MA), Me methacrylate (MMA), 2-hydroxyethyl methacrylate, triethylene glycol dimethacrylate, and bisphenol A glycolic dimethacrylate. Initial studies on thermal polymerization activities of H-MMAs (10%) with AA, MA, and MMA exhibited higher polymerization enthalpies than corresponding homopolymn.

H-MMAs

copolymerize with AA, MA, and MMA, indicating that these hyperbranched multi-methacrylates can be used as crosslinking agents or modifiers with a number of monomers.

- RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L7 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1999:104929 CAPLUS
- DN 130:268034

- TI Dendritic hyperbranched polymers as tougheners for epoxy resins
- AU Boogh, Louis; Pettersson, Bo; Manson, Jan-Anders E.
- CS Laboratoire de Technologie des Composites et Polymeres, Ecole Polytechnique Federale de Lausanne, Lausanne, CH-1015, Switz.
- SO Polymer (1999), 40(9), 2249-2261 CODEN: POLMAG; ISSN: 0032-3861
- PB Elsevier Science Ltd.
- DT Journal
- LA English
- AΒ Dendritic hyperbranched polymers (HBPs) show outstanding performances as tougheners in epoxy resins. The critical strain energy release rate, Glc, of bisphenol F diglycidyl ether epoxy resin is increased by a factor of 6 from 120 J/m2 to 720 J/m2 using only a 5% modifier weight content. This does not lead to a decrease in resin stiffness or glass transition temperature and the favorable processability of epoxy resins is fully maintained without requiring the use of solvents. Toughness properties are induced by a finely-dispersed particulate structure which is obtained by a controlled phase separation process during resin curing. A strong mech. phase interaction is ensured by chemical bonding through reactive epoxy groups grafted onto the HBP. By tailoring the HBP's epoxy functionality and polarity to control reactivity, phase separation, final morphol. and phase interactions, this toughening system is potentially applicable to a variety of thermoset resins. With this in view, the influence of the chemical architecture of the HBP modifiers on phase separation, processability, properties and toughening mechanisms is investigated.
- RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT